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An infant industry—rayon...

The acetate and viscose rayon industry is still an infant industry, rather than one approaching maturity. Actually, demand for rayon yarn and staple fiber was never stronger. The months ahead should find the cellulosic fibers in shorter supply than ever before--in spite of important increase in production facilities in recent years.

Although production has increased 70.2% in only five years, the total poundage increase is only 527,000,000 pounds, and the total of one and a quarter billion pounds made and sold in the United States today is less than 19% of the total consumption of all fibers in the textile industry.

We think it is also important to bear in mind that the special purpose chemical fibers slowly being introduced into the industry are supplementary rather than competitive to the cellulosics, and that they are being developed and introduced by the rayon companies themselves. Production of such fibers currently amounts to less than 10% of rayon output.

The same relationship, over the long term, exists between acetate and viscose rayon and the natural fibers--the former tend to supplement rather than compete with the latter and the net result has been and will continue to be better fabrics at lower prices and a stronger and more stable textile and apparel industry.

What are the limiting factors that restrict growth? Frankly, it is largely a matter of public education. It took a good many years to convince men, for example, that they could dress more comfortably and cheaper in summer suits made with a high rayon content. Lower priced summer suits also resulted in a widening market. It will not take so long for men to adopt the year-round rayon suit or topcoat; this market should soon be large enough to warrant another increase in production facilities.

Our industry's continued rate of growth will be measured not only by the rate of improvement in chemical fibers and fabrics but partly by the length of time required to educate the general public in the advantages of their use. In short, our industry's attainment of maturity is still in the distant future.

President

CELANESE CORPORATION OF AMERICA, 180 MADISON AVENUE, NEW YORK 16

Allied Stores Corporation

Some pertinent facts regarding the growth of Allied Stores during the past fifteen years

	YEARS ENDED JANUARY 31				PERCENT INCREASE 15 YEAR PERIOD
	1935	1940	1945	1950	
Net sales	$82,075,720	$112,122,354	$241,923,628	$407,838,280	397%
Net earnings	1,127,331	3,435,585	7,230,407	12,227,302	985%
Net earnings per share:					
Preferred stock	$5.28	$15.01	$34.71	$58.30	1004%
Common stock	(.19)	1.26	3.42	5.42	
Dividends paid per share of common stock	....	....	$1.00	$3.00*	
Net current assets	$23,744,475	$27,317,699	$46,447,248	$91,568,226	286%
Common stock equity—book value:					
Total amount	9,363,882	17,236,303	36,825,193	89,318,665	854%
Per share common stock	$6.90	$9.49	$20.40	$42.37	514%
Number of stores	32	57	69	73	128%
Number of states in which stores are located	14	22	23	23	64%
Number of regular employees	10,800	13,800	18,600	25,700	138%

*Common stock dividends have been paid regularly each quarter since April 20, 1942. The quarterly dividend rate of $.75 per share has been in effect since April 20, 1947.

The annual report of Allied Stores Corporation and subsidiaries contains much information about the company and its operations which is not summarized above. A copy of such report will be sent to anyone upon request.

ALLIED STORES CORPORATION

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The Analysts Journal

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1950

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NUMBER 3

Message from the President

ALL OF US ARE AWARE of the way in which the New York Society and the other Societies of the National Federation have grown in stature and in the respect of the financial community. It is hardly necessary for me to review the great contributions that have been made by the past presidents of the New York Society of Security Analysts in this success story. Each of these men has made his individual mark on our organization through utilization of his particular talents, and all have shown a unity of purpose in forwarding the interests of the Society.

It is difficult to imagine how the gains that have been made could have been accomplished without the ANALYSTS JOURNAL. Going beyond the increasing excellence of its material, the JOURNAL has been a link between the members of this Society and the members of other Societies.

Not too long ago, the JOURNAL made a rather abrupt change in appearance—entirely for the better. This change was made possible by adoption of a policy to encourage financial advertising. Revenues from this source are vital if we are to continue to expand our publication.

The position of the advertisers in the ANALYSTS JOURNAL is unique. They are not selling their products, nor are they selling their securities. Their aim must be to assist their stockholders and the investing public, through useful presentation of their policies and of the general situation to security analysts, for consideration by the latter in their dealings with investors. Most companies have recognized the position of the Society as an effective means of serving their stockholders. Facts, programs, and policies can be brought to the investing public generally through a critical screening of statistical analysis. Advertising in the JOURNAL does not, of course, give an opportunity for such as is afforded by our luncheon forum presentations, but it does serve to remind the analyst and the investor of efforts already made by this method.

All this leads to the suggestion that if any members are called upon to advise prospective advertisers in the JOURNAL as to its usefulness or as to a desirable basis of presentation, such advisers should keep the above in mind and emphasize the preparation of material that will be interesting and helpful to the analyst.

The present year presents a great challenge to us all. Let us not sit in contemplation of past gains but rather work to build upon them. I have been greatly honored in having been elected President of the New York Society and realize the responsibilities that I have assumed. I hope sincerely to make some small contribution in the progress of this year.

John W Spurdle

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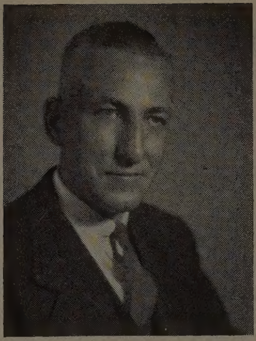

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Our Authors

MARTIN GAINSBRUGH, chief economist of the National Industrial Conference Board, often speaks at hearings such as before the Joint Committee on the Economic Report, February 16-17, 1949, and January 17-20, 1950. He is the author of many economic books and articles including "Domestic Consumer Markets," "Wages, Prices, Profits," and "America's Resources for World Leadership." He is an authority on business and finance and has taught at several universities.

CHARLES KERR, JR. was born in Kentucky, graduated from the University of Virginia in 1919, and finished his graduate courses at the Massachusetts Institute of Technology in 1922. He is well known for his contributions in articles and talks and is at present consulting transportation engineer for Westinghouse Electric Corporation.

ALAN H. TEMPLE has been vice-president of the National City Bank for the past nine years, after having been statistician for that organization since 1931. Before that he acted as editor and managing editor for *Commerce and Finance.*

JAMES W. SHOEMAKER, head of tbe research and buying department of Schwabacher and Company, San Francisco, has been with that firm for the past fifteen years. A graduate of the University of Illinois, he has been associated with National City Company, Chase Securities Corporation, New York, for about ten years.

MARSHALL H. WOOD was "born" into the investment business, being associated with his father in Boston through the 1920's, specializing in public utility securities. He was active in the consolidation of the utility companies now comprising Western Massachusetts Companies and other utility consolidations of that era. In New York he became associated with Standard Statistics Company. Later he joined the research staff of the investment counsel firm of Lionel D. Edie & Company and became manager of their municipal bond department. On January 1, 1946, he became manager of the research department of Tripp & Co., specialists in public revenue bonds, with whom he remained until his present connection with Schwamm & Company as manager of their revenue bond department.

FREDERICK V. GEIER, president of the Cincinnati Milling Machine Tool Company, was graduated from Williams College in 1916. Since that time he has specialized in all matters pertaining to this industry and is known as "one of the greatest industrial thinkers." Mr. Geier also is a director of Armco and several large organizations.

OSCAR M. MILLER has headed research department of Shearson Hammill & Company since the middle of 1948. Before that he was on the research staff of General American Investors for twelve years and was its secretary and treasurer. He has written for a number of publications and has lectured at the New York Institute of Finance and before other groups. He holds a bachelor's degree in chemical engineering from the University of Michigan and a master's degree in business administration from New York University.

STANLEY R. KETCHAM is an account supervisor of institutional, corporate, and individual portfolios with Moody's Investors Service, with which he has been associated since 1935. Starting in Wall Street as a runner with the New York Stock Exchange twenty-six years ago, he attended the New York Institute of Finance, New York University, and Pratt Institute of Science and Technology. From 1926 until 1935 he was engaged in market research for leading corporations.

BECAUSE of a typographical omission, the last issue of the ANALYSTS JOURNAL neglected to include on page 50 a line crediting the chart on this page to the *Book Of Indices,* published by R. W. Mansfield Company.

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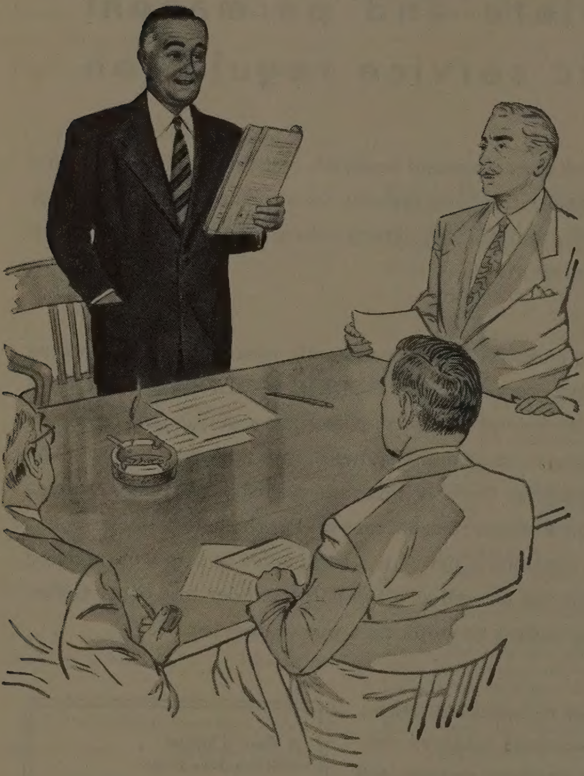

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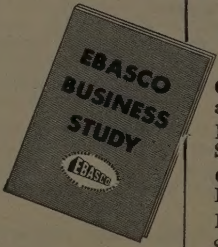

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What Price Economic Expansion?

MARTIN R. GAINSBRUGH

PERSONAL INCOME in the United States was already at an all-time high at mid-1950, even before the Korean invasion became the newest entry in a long series of inflationary potentials. Employment closely approached its earlier crest, unemployment had receded, and the physical volume of output gave promise of still another peacetime record. The deep gloom of summer of 1949 had been replaced by growing optimism over the continuance of high-level activity into the second half of 1950, well in advance of the stimulus provided by an actual shooting war.

RECOVERY ANTICIPATED BY MOST

This recovery was not unanticipated by most students of business trends. At the year's outset, it was clear that recovery had begun, and business executives and professional analysts alike went on record that industrial activity would rise significantly during the first half of 1950. The outlook for the closing months of 1950 was generally viewed as "uncertain." On closer examination the use of that phrase carried at least a hint of diminished or retarded production in the last part of the year.

UPTURN RATE SHARP FOR HOUSING AND AUTOS

Although the outlook for the first half proved right in its direction, the *rate* of upturn was somewhat sharper than expected, particularly for housing and automobiles. Weeks before our troops were again ordered into action, the business outlook for the second half was being viewed as increasingly favorable. Capital expenditures by business, according to both private and public samples, would be far better maintained than had been expected. Consumer surveys indicated that purchases of automobiles, homes, furniture, and other consumer durables would continue at an unabated rate. The outlook for satisfactory profits had brightened; likewise the new-order position of industry. Housing and construction contracts continued to rise. Thus the augury of our modern-day counterpart of economic oracles appeared increasingly favorable. And the new war stimuli will once more postpone the test of the true quality of the postwar prosperity and its durability. Each day's crop of headlines adds confirmation of further war-stimulated expansion. Scattered reports of scare buying, labor pirating in Detroit, "phantom" war orders, and the like are reminiscent of the upsurge of activity in the rearmament period of a decade ago.

GOVERNMENT A POWERFUL BUSINESS

But what about the course of business in the years immediately ahead, as distinct from the probable pattern of hyperstimulated business activity for the next few months? Much of our economic and investment analysis of the past decade has been inadequate and faulty primarily because it failed to recognize the altered and enhanced role of Government. Government has become a powerful business, probably the most potent single factor in the market place even in intervals of peace. Its policies and practices increasingly affect total national output, trends in the general price level, the payment and productivity of labor, as well as the rate and pattern of savings and investment.

The program of economic expansion as advanced in Washington for this and the decades ahead rests in good part upon expansion in the scope of the peacetime operations of Government. This was clearly revealed in the economic model submitted for 1954 by the Council of Economic Advisers in its *Annual Economic Review* for 1950 (see pp. 85*ff*). A national output of $300 billion to $310 billion (in 1949 prices) is envisaged by that time, but this is to be achieved through greater rather than reduced Government expenditures and through more rather than less intervention with the structure and operations of the market place.

ABSORBS MAJOR SECTOR OF NATIONAL OUTPUT

Direct purchases of goods and services by Government absorb a major sector of our national output. At midyear, before any significant change in the international situation, one of every eight persons at work was already on the payrolls of Federal, state or local government, as compared with one in 23 at the turn of the century. Government was buying $20 worth of goods and services for each $100 bought by individuals and private business. In 1929, it bought only $9 worth per $100 of private purchases. Government now virtually determines the income and price structure of agriculture. Its financial decisions influence, if not control, the rate of residential building. It competes directly with private industry in the generation and distribution of electric power and with private banking through the RFC and other leading mechanisms.

NATURE OF GOVERNMENT CHANGED IN A GENERATION

The nature, concepts, and objectives of Government have been so changed within less than a single generation that our existing structures would be unrecognizable to the founding fathers. We are now well embarked upon the third decade of deficit financing as an accepted way of national life, and there is no sign of retrenchment in Government expenditure in the model submitted for the "middle" term or the years immediately ahead.

Government, then, is in the market place in tremendously expanded form and will continue to be, even if the warm war cools, unless or until the economic as well as political philosophy now prevailing in Washington is replaced. It has increasingly become the principal determinant, directly or indirectly, of the size and distribution of our national income, and of wages, prices, and profits even in an *uncontrolled* peacetime economy. Whether or not we agree with this trend, we are doing business under such a structure currently, and due allowance must be made for the impact of Government upon the market place in which we will be doing business in the years immediately ahead. Conservative students of business may not approve of this growing intervention, but they would be derelict in their analytical functions if they did not make due allowance in appraising the business outlook for middle-term as well as the more immediate short-run results of this change in public policy.

"MANAGED" ECONOMIC EXPANSION OF VITAL CONCERN

The objectives of "managed" economic expansion and the techniques the managers propose to employ in reaching their objectives are a matter of vital concern to all those interested in future price and market trends. As culled from the economic reports and various speeches and testimony of the Council of Economic Advisers and other thought leaders in Washington, these appear to be the salient themes:

1. *Secular or continued long-term growth in Government expenditures.* Our citizenry looks to Government for an increased provision of goods and services, including a rising social minimum and better protection against the hazards of an industrialized society. Economic expansion will enable Government to provide such protection in higher absolute amounts and at the same time reduce the relative burden of Government costs.

2. *Acceptance of prevailing price level as sound for subsequent economic expansion.* Falling prices increase the burden of debt and are psychologically disturbing. Those living on fixed incomes have undoubtedly been hurt, but "there is no possible way of readjusting the whole economy to their particular needs."

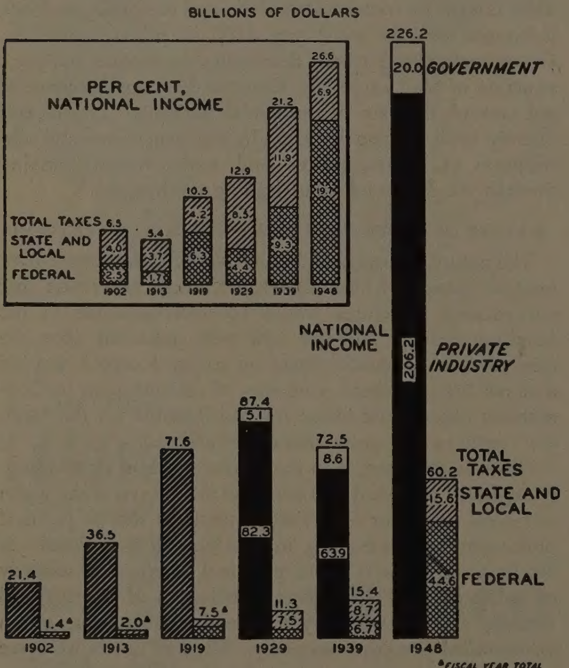

Figure 1. Taxes and National Income
Copyright National Industrial Conference Board
Wall Chart Service

3. *Continuously rising monetary wages.* Wages should move upward annually in accordance with the rise in productivity. Such a wage policy will firm the price structure, stimulate consumption, and promote a sense of well-being among labor groups.

4. *Further alterations in the distribution of income.* Corporate profits are too high for purposes of stability. As future output rises, profit margins should be decreased, and the wage share of national income correspondingly enlarged. Agricultural income should likewise rise to restore a better balance between farm and urban incomes.

5. *Insufficient private investment requires dynamic housing program.* The flow of savings into investment under the existing structure of private economy threatens to be inadequate to an increasing extent in the years ahead. American industry has caught up with the bulk of its program of plant modernization and expansion and equipment installation and replacement. Private investment should, therefore, be stimulated through Government guarantee or subsidy to provide at least 1.5 million housing units annually.

Each of these objectives described at greater length below could individually exert substantial influence upon the market place; combined, they could become the dominating force in our national economy.

GOVERNMENT EXPENDITURES

The President's economic advisers see little chance of any decline in Government spending over the middle term. So long as international frictions exist, defense expenditures cannot be curtailed. Pensions and medical services for veterans will increase. The costs of our social overhead, including broadened social security, move steadily upward. Piled atop these commitments is the inevitable long-term growth in the ordinary functions of Government.

Can this be offset by a more rapid expansion in the private economy? The record of the past half-century does not give such an indication.

TAX RATES UP TO 26.6%

Taxes took only a small slice of the national output, say, a nickel, in the initial decades of this century (see Figure 1). Even in 1919 our total tax bill was equivalent to little more than ten cents on the dollar of income. The Federal take was cut in the twenties, but the proportion of state and local governments doubled. By 1929 taxes accounted for one of every eight dollars of income. In the last two decades the balance has swung sharply in the direction of the tax collector, so that by 1949 the tax ratio had risen to 26.6%.

TRUE RATIO OF TAXES UNDERSTATED

Even this figure understates the true ratio of taxes to income. It is the official practice in estimating national income not only to state income before taxes but also to add to national income all wage and salary payments made by Government. Last year nearly 10% of our national income reflected the payrolls of Government. Excluding the Government component, the total tax burden could be more accurately fixed at about 30% of all income produced by private industry.

NATIONAL INCOME EXPANDED IN PAST DECADE

We experienced during the past decade the sharpest expansion in national income this Nation has ever known. In dollar terms our national income is now fully three times as great as it was in 1939. Much of this represents merely an increase in our price level, but our physical output of goods and services per capita has risen by at least 50% over the past decade. This is perhaps the sharpest increase in the flow of economic goods to our people ever recorded. Yet even this unprecedented expansion was not sufficient to offset the mushrooming of governmental costs. While our national income tripled, Government spending nearly quadrupled.

BURDEN OF GOVERNMENT NOT DECREASING

Our most recent experience, therefore, reveals no tendency for either the absolute or relative burden of Government to decrease, even under the hyperstimulation of the past decade.

The Council's model for 1954 implies Government expenditures for goods and services by 1954 of about $47 billion. This means that even after the current international crisis has been met public spending would be above rather than below the rate of the last year.

Nor is this the complete picture of Government expenditures. To public expenditures for goods and services must be added interest on the public debt and transfer payments such as social security benefits and direct relief. The former totals about $4.5 billion currently and the latter about $12 billion. Further moderate expansion of social security by 1954 is anticipated. Thus the complete total of Government expenditures for the middle term might be set at roughly $65 billion to $70 billion, or $5 billion to $10 billion more than was spent by Federal, state, and local units last year.

PRICES

We seem as a Nation to endorse the price and product correction of 1949 as sufficient to restore balance and stability to a price structure that was distorted by wartime influences. The President in his recent Economic Report stated first that "late in 1948 we met the test of adjustment . . . . Today we are on firmer ground than we were a year ago. *Prices are down somewhat and show the relative stability on which firm business and consumer plans can be based.*" The Council of Economic Advisers in its subsequent exploration concludes that "the price level is now within a range where stability should be feasible at workable levels." It hints that some downward correction in price might be desirable, particularly in improving the status of the fixed income groups. Generally speaking, the report endorses the prevailing price level and the relationship among most prices as the point of departure for subsequent expansion. It is true that acceptance of the prevailing price level means a loss of status for the fixed-income groups, through expanded welfare payments. It does not intend to permit a similar restoration of status for the fixed-income groups who rely upon interest or rentals as their primary source of income. Instead, it endorses continued tight control by Government of the prevailing rate of interest and refers only once to rent control and then favors its continuation.

DRASTIC REDISTRIBUTION OF WEALTH PERMANENT

Although the Council faces up in part to the consequences of its program so far as fixed-income groups are concerned, it says nothing about the implications for other sectors of our population, including the millions who believed themselves to be substantial creditors prewar. Acceptance of the prevailing price level as a Government goal automatically makes permanent the drastic redistribution of wealth that has occurred over the past decade. Through the progressive income tax and related measures, the distribution of disposable income has been dramatically altered in far less than a generation. But this process of redistribution was at least sanctioned through popular vote and required a constitutional amendment before it became the law of the land.

ACCOMPLISHED THROUGH CAPITAL LEVY

Implied in the Council's program is a redistribution of wealth to be accomplished through an indirect or concealed capital levy. All sectors of our society, debtors and creditors alike, shared in the expansion of income in the upswing of inflation, but the holders of property and the thrifty who accumulated savings prewar are to bear the brunt of the burden of stabilization. Millions of individuals held endowment policies prewar or had otherwise set aside funds which they believed would yield a competence for their old age or ample funds for the education of their children. They are now exposed to the permanent loss of at least half their capital by the adoption of a managed-price program, along the lines recommended in the recent Economic Report.

WAGES

The wage policy proposed by the managers of economic expansion calls for an unbroken succession of annual increases in monetary wages. They discard enhancement of real wages through lower prices. During the past decade wages have far outstripped the rise in output per man-hour. This distortion in unit labor costs would be frozen into the price structure by a wage productivity escalator, similar to that incorporated in the recent General Motors' contract.

EXPANDING LABOR COSTS IN YEARS AHEAD

A policy of having most, if not all, of the gains in productivity channeled into wage increases may actually expose us to constantly expanding labor costs per unit of product in the years ahead. True, the escalator arrangement proposed is for money wages to rise in keeping with the gain in productivity. But a national policy to encourage the *same* rate of gain in wages as in productivity might actually result in a *more rapid* gain in wages. Labor would continue to press for increases for factors other than productivity, such as preservation of existing wage differentials, the exceptional ability of selected firms to pay more than the going rate, the competitive race between unions for

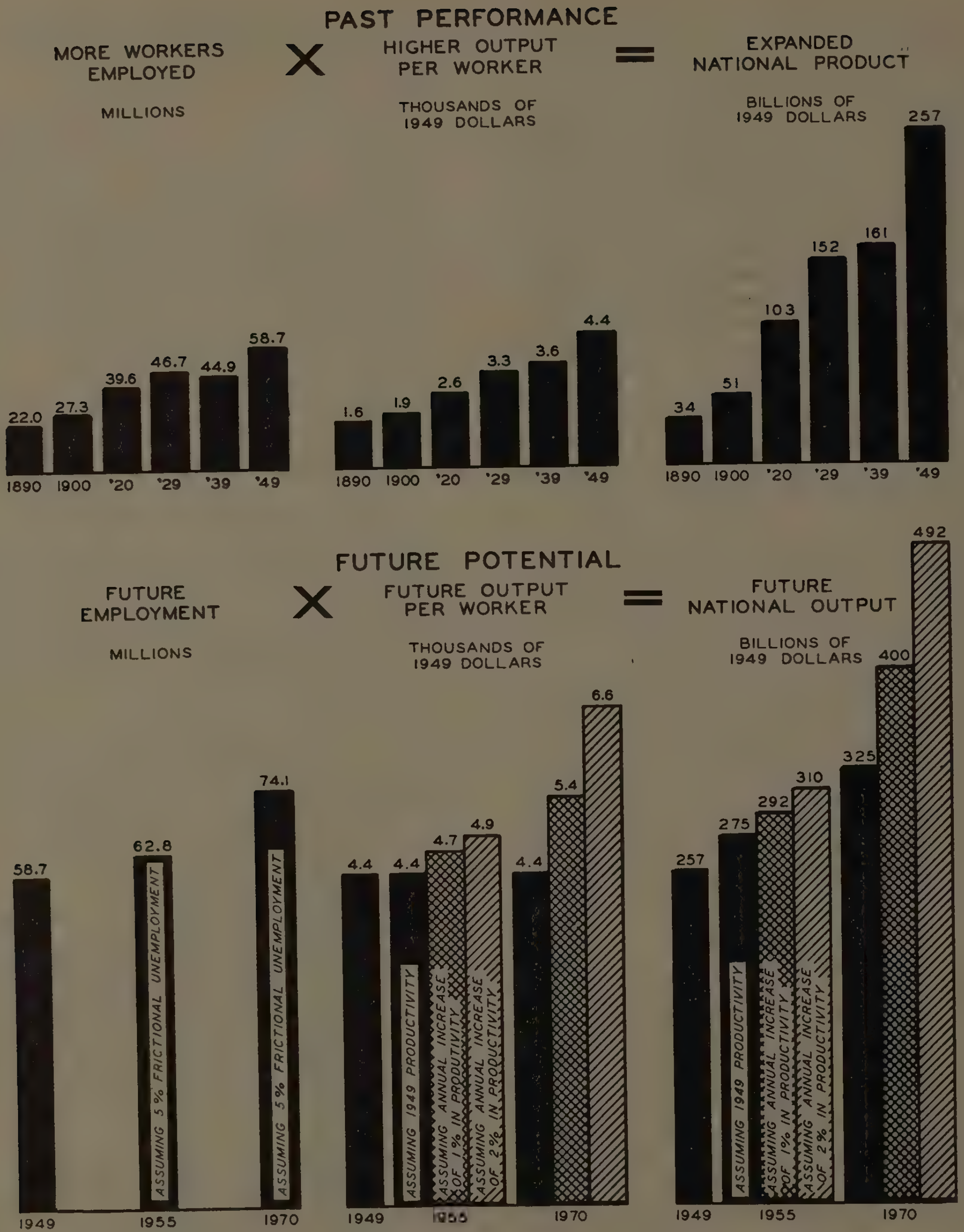

Figure 2. National Output

Sources: Bureau of the Census, Council of Economic Advisers, The Conference Board. Copyright National Industrial Conference Board better than the average rate increase. Thus the productivity adjustments would become simply the national minimum for those industries in which factors other than productivity were not favorable.

OUR ECONOMY WALKS ON PRICE STILTS

In terms of historic perspective, our economy walks on price stilts. The wholesale price index is at about the top of any past inflation in our history, and our cost of living index is well above the zenith of any past inflation. Perhaps we will be blessed this time and can expand an economy at a price level that is without a peacetime parallel. But our present price position is historically so unbalanced it should serve as a caution to all concerned with the Nation's future—particularly when the techniques proposed for managed economic expansion create additional inflationary pressures.

ALTERING INVESTMENT AND DISTRIBUTION OF INCOME

These two objectives stem from one concept and should be considered together. In its simplest and starkest form it can be labeled the doctrine of sovereignty of consumer purchasing power. Public policies must be so designed as to advance and expand purchasing power. An enlarged purchasing power will permit buyers to remove an ever expanding volume of goods and services from the market. Property income and profits are not so readily transformed into active purchases as are wages and salaries and related service items. Alteration in the distributive shares of national income will reduce the idle hoards of property-owning groups and at the same time expand the market for additional goods and services by the employee-consumer groups in our society.

COUNCIL RECOGNIZES FORCE OF PROFITS

True, the Council duly recognizes the motivating and energizing force of profits and the contribution this can make toward economic expansion. In its 1954 model it allows for a rise of $40 billion to $50 billion in consumer expenditures. Despite this rise it believes private investment need be no greater than in 1948–49. Profit margins would grow narrower as output rose. A smaller slice of national income for profits would provide elbow room for expanding labor and farm income. As Professor McNair of Harvard University recently observed in a discussion of the 1950 economic reports by The Conference Board Economic Forum:

> The Council seems to have little confidence in private investment and in the forces of the free market. Instead, there seems to be confidence only in the ability of economic managers to shape the course of economic progress. The Council apparently believes in the primacy of consumer purchasing power and the necessity of Government expenditure to support it. I believe in the primacy of individual initiative and private investment proceeding on an enterprise basis. I think that confident businessmen can produce far more purchasing power than public expenditures can produce.*

From the foregoing it is clearly indicated that the economic expansion promised for middle term and the decades beyond is not without its costs. This picture of managed prosperity has been presented to the public primarily in terms of individual benefits. The costs remain veiled or hidden. They include not only mounting Government outlays but also greater intervention by Government in wage and price determination, in the accumulation and disposition of savings, and in the pattern of production and consumption.

The targets for managed economic expansion promise no higher yield than that we would achieve if past gains in productivity are continued (see Figure 2). This was achieved in the past without resort to Government intervention in investment, wages, and other market functions.

We are bound by present public policy to an inflated price level at about the zenith of any past major inflation. Rising monetary wages, advancing as rapidly as if not more rapidly than productivity, further reduce the possibility of any substantial price reduction, as does our expanding social overhead.

Advancing technology and enlarged capacity are potent forces contributing toward sound economic expansion. But, under a managed wage-price policy, most of the gains of greater productivity would be diverted to wage increases rather than price-quality improvement as in the past.

The housing and construction industries are favored as areas in which private investment can be stimulated through Government guarantee or subsidy. Incomes of farm and labor groups must rise relatively as well as absolutely in order to promote active purchasing power at the expense of those groups whose income is derived from profits or property.

Growth potentials now have much the same favorable background as in our earlier history, including an expanding population and family formation, adequate natural resources, and advancing technology.† The enterprise of both management and labor accounting for our past economic development was energized by individual initiative and market forces. The evidence presented leaves little room for doubt that not only is Government a most potent force in the market place today, but also that its importance will be greatly magnified under managed expansion of the economy. Its intervention introduces a strong *secular* inflationary bias in the price structure. The reshuffling of economic resources in the last year or two has made possible the absorption of some of this inflationary pressure. Technological gains have also made their contribution. There may be further mild price corrections, after the present war stimulus has abated, but the long-range trend of prices appears to be pointed upward by wage-price pressures. The expansion of mass purchasing power by the Government under managed expansion also carries with it a threat to profit margins, to the incomes of private investors, and to the net return of holders of property.

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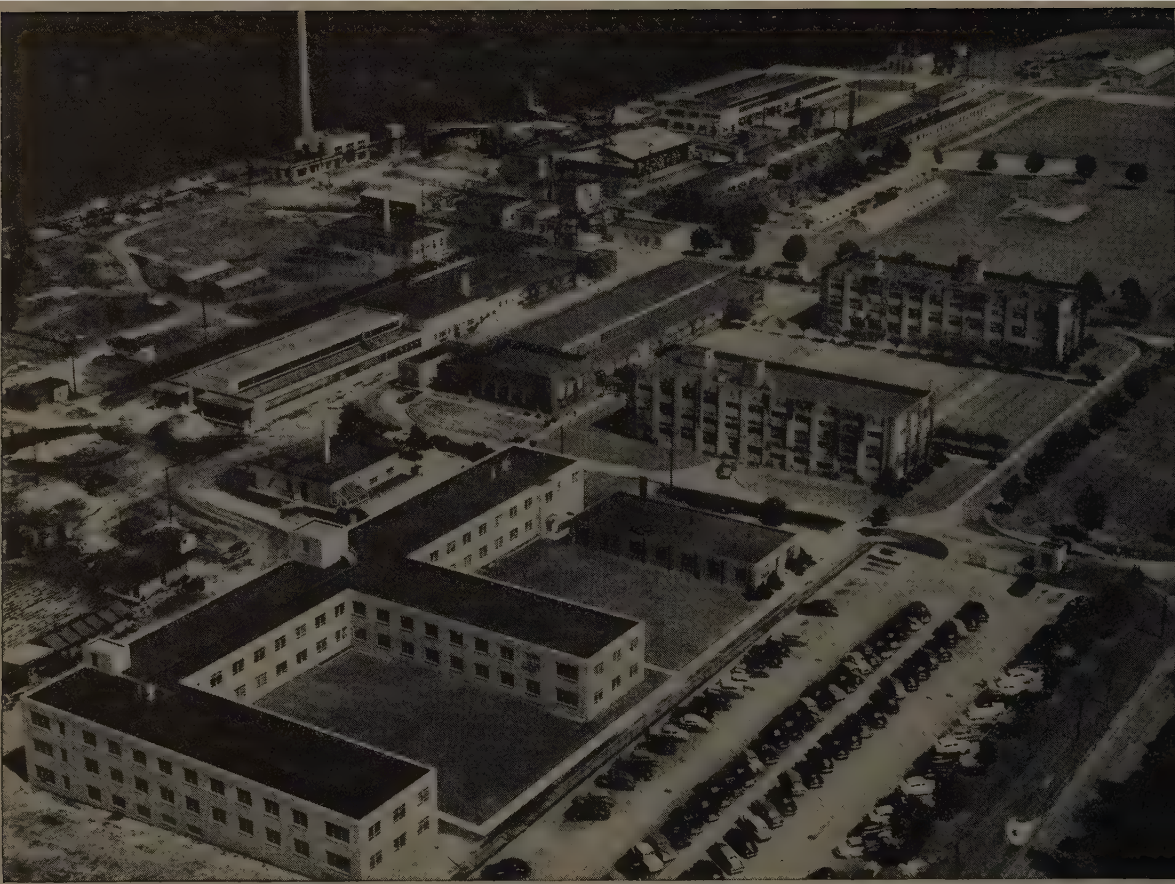
*See Pros and Cons of the CEA Reports, *Studies in Business Economics,* no. 25, The Conference Board, July 1950.

†For a graphic survey on this subject see *Economic Expansion—Patterns, Problems, Potentials,* recently published by the National Industrial Conference Board. Copies of this publication are usually available only to companies associated with The Conference Board. Through special arrangement they are being made available to the ANALYSTS JOURNAL audience. Requests should be sent directly to the National Industrial Conference Board, 247 Park Avenue, New York 17, N. Y. Price, 75 cents a copy.



A place in the sun . . .

Success in any undertaking depends in large measure upon a knowledge of the facts.

Facts are stubborn things, and having the proper facilities for getting *at* them and delving into their various shades of meaning is of prime importance.

Gulf's leadership in the petroleum industry is largely maintained by the never-ending search for facts, and their interpretation which goes on continuously in the buildings shown above.

Located at Harmarville, Pennsylvania, on a high plateau overlooking the Allegheny River, Gulf's Research Laboratory has truly won an enviable "place in the sun" in the field of petroleum research. It represents the most highly integrated unit of its kind in the world.

The aerial view, above, does not begin to illustrate the real magnitude of the activities which take place in these buildings.

Research is carried on by Gulf in every phase of geophysics, geology, chemistry, physics, engineering and metallurgy as applied to the discovery, production and refining of petroleum.

More than a thousand persons work at the Harmarville Laboratory, while more than five hundred others are employed in the field gathering geophysical data. Their work has had a beneficial effect on the comfort, health and convenience of every living American.

For through research, Gulf finds better ways to discover, produce and refine oil. It finds better ways to utilize by-products, to improve existing products, and to produce new ones.

This is one reason why Gulf is an outstanding company in one of America's most progressive industries.

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GULF OIL CORPORATION
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Economic Possibilities of New Types of Motive Power

CHARLES KERR, JR.

THE FOLLOWING FACTORS, as they may pertain to any particular type of motive power, will have a very definite bearing on a locomotive's over-all economic status and on its ability to capture a sizable portion of the present or future market:

1. Operating performance, or characteristics for satisfactory over-all train operation.
2. First cost, or the total over-all investment required.
3. Direct operating expenses, particularly fuel and repairs.

OPERATING PERFORMANCE OF LOCOMOTIVES

The first requisite of a thoroughly satisfactory locomotive is that it should be the best possible device for the haulage of rail traffic. By meeting this requirement, a locomotive can not only provide better schedules, but also produce marked operating economies. Locomotives usually are designated by their power plants, but it is more significant to designate them by their operating characteristics. When so classified, they generally fall into two groups: those with direct mechanical drives and those with torque converter drives. A locomotive with the direct mechanical drive, best exemplified by the reciprocating steam locomotive, has a tractive-effort-speed relationship that definitely resembles that of the prime mover or engine by which the locomotive is powered. Its characteristics are neither better nor worse than those of the prime mover itself. On the other hand, a locomotive equipped with a torque converter drive may have a tractive-effort-speed relationship definitely different from and superior to that of the prime mover by which it is powered. The full significance of this difference in locomotive performance is not universally appreciated, especially in its effect on operating expenses.

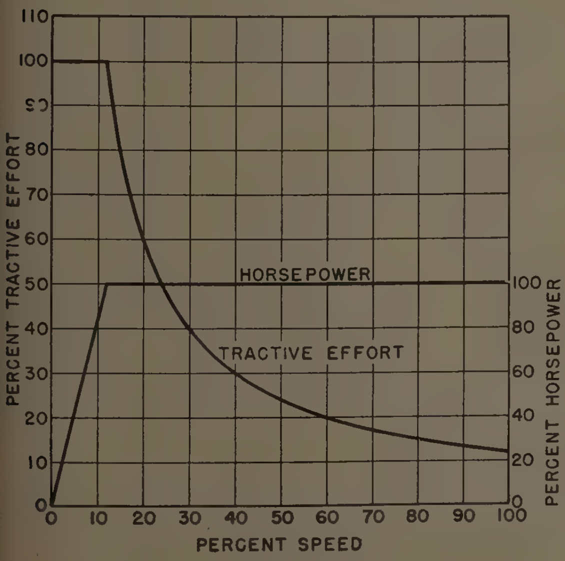


Figure 1. Performance of the ideal locomotive.

The performance of what might be termed an "ideal" locomotive is expressed in the form of conventional locomotive curves by Figure 1. This locomotive can deliver full rail horsepower at all speeds up to the slipping point of the drivers.

No known locomotive can meet this "ideal" performance when driven through a straight mechanical drive because no prime mover has been developed capable of producing full output except at one speed, or, at best, over a very limited range of speeds. The steam engine, with a straight mechanical drive, gave a sufficiently close approximation to the curves of Figure 1 to have made it a workable though imperfect motive power unit. On the other hand, newer types of prime movers, now capturing the locomotive market, were completely unacceptable for universal use until a substitute for the direct mechanical drive became commercially available.

The torque converter drive, in the form of the electric transmission, not only changed the characteristics of locomotives for the better as transportation tools, but also opened the locomotive field to many new and highly efficient prime movers like the Diesel engine, the steam turbine, and the gas turbine. A locomotive powered by any of these machines can essentially meet the "ideal" performance of Figure 1 when utilizing a torque converter drive.

The torque converter drive, in simple mechanical terms, is the equivalent to a gear shift with an infinite number of speed combinations. Through its use, the prime mover that powers the locomotive may be permitted to operate at its most efficient speed irrespective of the locomotive speed. Also, when it is used, the tractive-effort-speed curves of all locomotives with equal horsepower capacity can be made identical irrespective of the type of prime mover by which they are powered. The present accepted form of torque converter drive is the electric transmission which seems destined to be a vital part of all foreseeable future locomotives.

A specific example of the tractive effort secured from a 5,000-rail-horsepower Diesel, steam, or gas turbine locomotive with electric drive, against a 5,000-rail-horsepower re-

TABLE 1

	Tractive Effort, pounds		
Speed, mph	*Electric Drive Locomotive*	*Reciprocating Steam Locomotive*	*Per Cent Improvement*
0	240,000	110,000	118
10	187,500	97,000	93
20	93,750	75,000	25
30	62,500	58,000	8
40	46,875	46,875	0
50	37,500	34,700	8

ciprocating steam locomotive, both designed for freight service, is illustrated by Table 1.

The modern locomotive, with an electric or torque converter drive, is producing the following definite economies in operation, irrespective of any reduction in over-all maintenance expenses or increased efficiencies:

1. Improved schedules from a reduced prime mover capacity by delivering a constant horsepower output at the rail over the full range of operating speeds.
2. A reduction in the number of trains due to increased train tonnage.
3. A reduction in helper locomotive service due to larger locomotive draw bar pull.
4. Greater flexibility, making possible long engine runs and high locomotive mileage.
5. Better tracking qualities at all speeds.
6. Improved designs of locomotive running gear.
7. Electric braking, reducing or removing the duty from the air-brake system and wheels when descending grades.

These economies and improvements in operation result from the electric torque converter drive, not from the use of any particular type of prime mover, and are most important in the evaluation of the newer types of motive power which are replacing the reciprocating steam locomotive. These improvements can be secured in all the newer types to a more or less like degree.

LOCOMOTIVE POWER PLANTS

At the present state of the art, five types of power supply can be built or offer prospects of successful development for locomotive service. These are the reciprocating steam engine, the Diesel engine, the steam turbine, the gas turbine, or electrification.

The reciprocating steam locomotive appears to be passing from the American railroad scene because other types are producing better and more economical operation. But, before receiving a degree of competition from which it does not seem capable of reviving, the steam locomotive built and carried rail traffic almost exclusively for over a century.

The Deisel is today in the dominant position among the potential candidates for the steam locomotive's place of preeminence. The Diesel engine, as a source of power, is a proven device of high efficiency and extreme versatility. With its use, locomotives are available for every type of service in capacities from 600 to 6,000 horsepower. Because Diesels can be produced over this range at an almost constant price per horsepower, locomotives so powered can cover economically the entire requirements of any railroad. For the long pull, the Diesel could prove somewhat vulnerable to competition because its operation requires a high-cost oil of doubtful supply, and because of relatively high maintenance, which seems to be characteristic of all reciprocating engines.

The steam turbine is a proven power plant for stationary and marine service, with a limited background in rail service. There should be every expectation that its operation in the latter can be made reliable and relatively trouble-free. Its economy for locomotive service depends on the production of a satisfactory high-pressure boiler, one of which is now under construction. The steam turbine locomotive, with a suitable boiler, could prove to be an economical motive power unit of large capacity for roads having access to low-cost fuels, either coal or heavy oil.

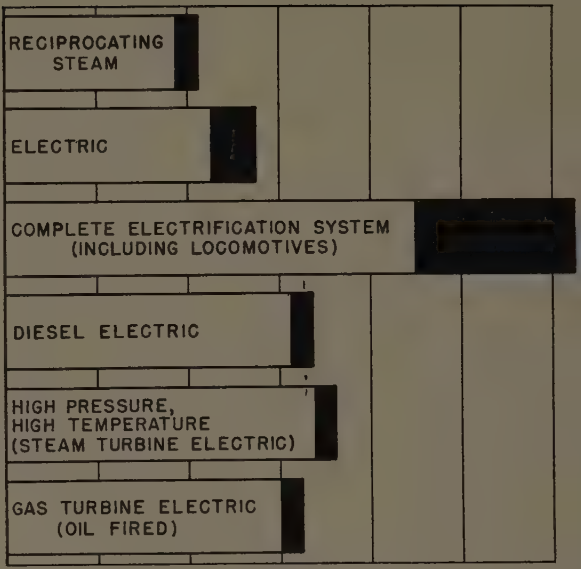


Figure 2. Comparative locomotive prices per rail horsepower.

The gas turbine is intriguing for locomotive service because of attractive space and weight requirements, its absence of reciprocating parts, its elimination of water, and its potential chances for burning low-cost fuels, either liquid or solid, at comparatively high efficiency. From the standpoint of first cost, its field lies in the larger sizes suitable for road service.

The gas turbine is definitely in the development stage. One American locomotive has been completed and placed in operation burning oil, and two others under construction are contemplated this year. In addition, a major program leading to the production of coal-burning models is under way. From these projects, and in view of the companies that are backing them, a successful gas turbine locomotive would seem almost a certainty before too many years.

The finest motive power of all is the straight electric locomotive, which operates without restrictions imposed on other types that must carry their own power plants. Its operating merits and economies are well recognized. Its one big handicap has always been an excessive first cost. Should railroad speeds be substantially increased over present standards to meet air and truck traffic, electrification could become the answer to many railroad problems. Its long-range future is also strengthened by its ability to operate with oil, coal, or water power, a broad insurance against difficulties resulting from any major changes in our national fuel situation.

MOTIVE POWER INVESTMENT

In venturing a discussion of the economic possibilities of these various types of motive power, it should be evident that many predictions must be made on engineering judgment. Some of the types under discussion have a wide operating background, whereas others have essentially none. Even figures on those with ample operating background are subject to so many interpretations that it is often difficult to reach universally acceptable conclusions from them. The comparisons given here are taken from a study that we initiated for our own guidance. It is appreciated that they will not be concurred in by all, but, in their defense, I would like to say that they have one merit—they were derived with a perfectly impartial approach.

The investment required for any particular type of motive power will exert a considerable influence on its selection. Figure 2 presents relative estimated prices for rail horsepower for various locomotives built in quantity production and in capacities suitable for road service.

The steam locomotive has the lowest first cost of all. However, owing to the better availability and better operating performance of the other types, this advantage is largely destroyed.

Of self-propelled types other than the conventional steam locomotive, the difference in first cost, in locomotives for main-line road service, is less than 15%. Electrification is greatly influenced by the roadside investment required for particular projects and may exceed other types by 50% or more. Our problem as electrical manufacturers is to find means of reducing electrification costs, a project on which we are now working.

From Figure 2 there has been omitted one very promising type of locomotive—the coal-fired gas turbine. Until methods are established for successfully burning coal in the gas turbine, it is difficult to predict its cost with any degree of reasonable accuracy. The coal-fired gas turbine will doubtless cost more than its oil-burning counterpart, but how much more depends on the simplification that can be secured in coal-handling machinery and coal-burning apparatus that must be supplied.

Locomotives powered by steam or gas turbines will increase rather rapidly in cost per horsepower when built in small sizes for switching, transfer, or branch-line service. This is not true of the Diesel; consequently, for such services, the Diesel investment will be considerably lower.

One of the principal reasons why the Diesel locomotive can be purchased for around $100 to $110 per engine horsepower is the mass production of a few standardized models and the acceptance by the railroads of such standardization. Steam power was generally tailor-made to suit the particular wishes of the purchaser, and the electric locomotive has suffered from this same handicap. In the future, if the railroads are to secure any type of motive power at a reasonable first cost, they must accept a few well-chosen designs as they have accepted the Diesel. The days of tailor-made locomotives capable of competing with the Diesel are over.

LOCOMOTIVES' OPERATING EXPENSES

An estimate of the relative direct operating expenses of different road locomotives is illustrated by Figure 3.

In this chart crew expenses have been omitted. The locomotives with electric drive, having similar hauling capacity for equal weights on drivers, will all show essentially identical expenses for operating labor. Compared to the expenses of steam locomotive, their economies in crew expenses are dependent to a marked degree on the profile of any particular road, but, as a general rule, all of them will be considerably below those of the reciprocating steam locomotive because their operating performance will permit the haulage of increased train loads and quite frequently the elimination of helpers or double heading. Roads with severe grades profit more in this respect from the new types of power than roads with virtually level profiles.

It is our belief that the vast majority of future locomotives will be constructed with the truck type of running gear and an electric drive. Consequently, any major differences in maintenance expense that will exist among them will come from the cost of repairs to the prime movers.

If we take the modern Diesel locomotive as a base point of comparison, the maintenance expense of this type of power is composed of roughly 50% for the engines, or prime movers, and 50% for the remainder of the locomotive. Thus, in comparison with the Diesel, the potential variation in maintenance expense must come from that half chargeable to the engines themselves. Without doubt, Diesel engines will improve, reducing their over-all maintenance expense, but other parts of the locomotive should also improve, so that the relative percentage of total maintenance chargeable to engines may remain virtually constant.

The electric locomotive, carrying no prime mover, will have the lowest maintenance of all.

As a prime mover the steam turbine offers the best prospects for low maintenance with its proven background and absence of reciprocating parts. Its efficient operation, though, requires a high-pressure boiler, and the maintenance of a complete locomotive becomes largely dependent

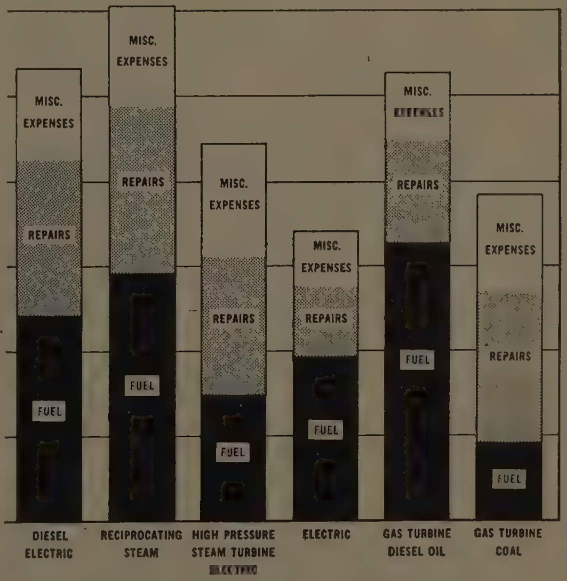


Figure 3. Comparative operating expenses per locomotive-mile.
Estimated for average service.

on the success obtained in building a high-pressure boiler that is relatively trouble-free. Until operating experience can be secured with locomotives of this type, repair costs must be estimated, subject to later confirmation.

The repair costs of the gas turbine should eventually approach the low figures expected from the steam turbine without carrying with it the expenses of a boiler. When oil is burned, the total locomotive repair costs undoubtedly will be below those for coal-burning locomotives because coal-handling and processing equipment will be eliminated. Again, we must make our estimates on engineering judgment, not on service experience.

The locomotives that are supplanting the reciprocating steam locomotive are more complicated devices, utilize more precision-built machinery, and will not suffer certain abuses without disastrous results. The railroads can accomplish much toward reducing the repair bill by the installation of better maintenance facilities, but also particularly by the proper application and use of this new motive power. Improper application and use of the modern locomotive are invitations to high maintenance and road failures.

The biggest potential variations in operating expenses occur in the fuel bills. This portion of expenses is dependent not only on the efficiency of the locomotive itself but also on the price of the particular fuel that can be used by each prime mover. The average over-all efficiency of the several locomotives will run generally as indicated in Table 2.

TABLE 2

Reciprocating steam	5 – 6%	Fuel to rail
Diesel electric	23%	Fuel to rail
High-pressure turbine electric	10 – 11%	Fuel to rail
Open-cycle gas turbine electric	15 – 17%	Fuel to rail
Electric	75%	Trolley to rail

The spread between the cost of fuels per British thermal unit is three or four to one, and even more between fuel costs and electric energy. These differences also vary for different localities throughout the country, and the price trends of all fuels have not moved together over the years. Consequently, any chart such as Figure 3 must be evaluated and modified with considerable attention to a given application. At the present, any efficient locomotive that can burn coal, or the low-priced fuel oils, has a definite advantage in fuel costs.

Figure 3 is most applicable to road power. In switching and transfer services, locomotives remain idle for a large percentage of the time. In such services, the Diesel has such an enormous advantage that none of the other types appears practical as a serious competitor.

GENERAL COMPARISON OF MOTIVE POWER

Many factors enter into an over-all appraisal and selection of motive power. Table 3 shows a general appraisal of those locomotives that offer promise of supplanting the reciprocating steam locomotive. For each factor listed, the table shows a comparative preference rating by types.

It should be appreciated that the factors shown in the table assume different importance for the various railroads, depending on their operating problems, locality, and numerous other considerations. The most interesting feature of a comparison of this kind is that no one type of locomotive appears supreme on all counts, and, as long as this situation exists, no one type can be considered the universal answer to all motive power requirements of the railroads.

Based on our present knowledge and engineering judgment of what the future may hold, certain conclusions concerning the probable status of the several types of locomotives can be drawn.

Modern railroading will demand that all locomotives shall meet these definite requirements, irrespective of the type of prime mover by which they are powered:

1. Locomotives must have an electric drive, or a drive of equivalent performance, because it makes a motive power unit that is better adapted to the economical movement of rail traffic.
2. Standardized construction must be employed to lower first cost, to simplify maintenance, and to reduce inventory.
3. Locomotives must have high availability, high efficiency, and low maintenance to meet rising operating expenses.

Within the realm of practical prediction, the probable status of each particular type seems to be as follows:

Reciprocating Steam. Future purchases will be confined to those roads with a preponderance of coal traffic and will continue only until a more economical coal-burning locomotive becomes commercially available.

TABLE 3. COMPARISON OF EXISTING AND PROJECTED LOCOMOTIVES WITH ELECTRIC TRANSMISSIONS

RATING IN ORDER OF PREFERENCE

	ELECTRIC	DIESEL	STEAM TURBINE	GAS TURBINE OIL	GAS TURBINE COAL
1. BACKGROUND—Actual Operating & Engineering experience	1st	1st	2nd	3rd	4th
2. FINANCIAL					
a. Locomotive investment	1st	3rd	4th	2nd	5th
b. Overall system investment, including fixed property	5th	2nd	3rd	1st	4th
c. Direct operating expenses	1st	5th	3rd	4th	2nd
d. Financing problems	2nd	1st	1st	1st	1st
e. Changes to fixed property	5th	2nd	3rd	1st	4th
f. Ability to secure economies without large capital outlay	5th	1st	3rd	2nd	4th
g. Influence on railroad commercial traffic	3rd	4th	1st	4th	2nd
h. Dependency on traffic density for overall economy	5th	1st	4th	2nd	3rd
3. OPERATION					
a. Locomotive operating characteristics	1st	2nd	2nd	2nd	2nd
b. Locomotive availability and reliability	1st	3rd	4th	2nd	5th
c. Coverage of all locomotive requirements—Passenger, Freight, Sw.	2nd	1st	5th	3rd	4th
d. Emergency operation over any route	2nd	1st	1st	1st	1st
e. Dependency on good water	1st	2nd	3rd	1st	1st
f. Freedom from smoke and fumes	1st	2nd	4th	2nd	3rd
g. Locomotive weight per horsepower	1st	3rd	5th	2nd	4th
h. Locomotive length per horsepower	1st	5th	4th	2nd	3rd
i. Maintenance and servicing facilities	1st	3rd	4th	2nd	5th
4. FUEL					
a. Efficiency—Fuel to rail	2nd	1st	5th	3rd	4th
b. Fluctuation in fuel or energy costs	1st	3rd	2nd	3rd	2nd
c. Assured fuel or energy supply	1st	3rd	2nd	3rd	2nd
d. Fuel handling facilities	1st	2nd	3rd	2nd	4th

Electric. For the present, domestic purchases will be confined to railroads now electrified. For the long pull, its improved operation and its ability to utilize coal, oil, or water power should warrant its further expansion to roads of heavy traffic density where electrification can give a better standard of service than any other motive power in prospect.

Diesel Electric. The Diesel, having the greatest versatility, will be a serious competitor for all services. In switching operations, no promising competitor appears, and the Diesel should eventually supplant all other types in this service. For road operation, it will continue to dominate the market until proven competition of superior operating efficiency appears. The Diesel, in road service, may be vulnerable to competition on account of high engine maintenance and reliance on a high-price fuel.

Steam Turbine Electric. The major attraction of this type of power is its use of coal with a potentially lower cost of fuel. Its initial application will be limited, in all probability, to the coal-carrying railroads and to road service.

Gas Turbine Electric. This type of power may prove to be a worthy competitor to all other types, especially in locomotives of large capacity. When it is perfected to burn low-grade oils or coal efficiently and reliably, it may be the most formidable competitor of all.

It is obvious that developments now in progress will produce during the next decade many outstanding improvements in motive power. At the present time, the annual expense of the class I railroads directly chargeable to motive power operations exceeds $2 billion. Consequently, any and all developments leading to improved economy of motive power should receive the wholehearted support and encouragement of the American railroads, and the newer types of power, as they become commercially available, should be used in those services where they will show the greatest over-all economy.

* * *

Some Consequences of the War of 1812

Since the Editors believe that readers may be interested in conditions during and after the War of 1812, we are inserting a few reminders culled mostly from the current periodicals of the day.

1812

War declared on June 18 depressed trade and stocks. Flour reached 12½ dollars a barrel.

Bank of America Charter caused a legislative investigation. "John Martin, a preacher and sub-agent of the bank, was convicted of attempting to bribe members of the Legislature."

Lottery to raise $16,000 net for repairing the beach and water front of Plymouth, Mass.

New York Statutes contained a law against short selling.

February . . . "a great advancement in the manufacture of superfine cloths."

June 12 . . . "Trustees of the Bank of the United States declared a dividend of 70% of the capital."

October 3 . . . "The last crop of wheat was uncommonly productive."

1813

"War time taxes were levied, on carriages, on retailers of wine and spirits and merchandise, on salt, and the duties on imported merchandise doubled."

Congress appropriated $2,500,000 for building warships.

February 8 . . . "Congress authorized a loan of $16,000,000. Lenders to receive a 6% stock." Other small loans followed.

March . . . Madison accepted Russian offer of mediation.

May 9 . . . "Gallatin sailed for Russia on mission of treaty of commerce."

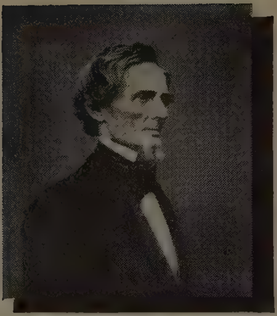
August 2 . . . "Act authorizing a loan for a sum not exceeding seven millions five hundred thousand dollars."

December . . . "The mania for banks is truly alarming—though perhaps the establishment of some of them may be expedient."

December . . . Embargo on all ships and vessels in the ports and harbors of the United States.

December 25 . . . Cotton sold at Baltimore for 40c per pound. "The home demand is monstrous; but this price is too great (it fell 10c to 15c a pound)."

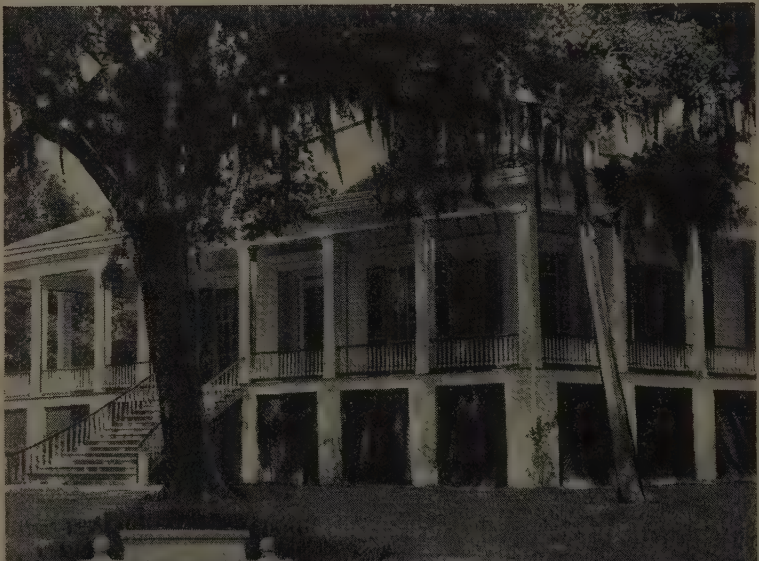
December 25 . . . "The great speculations that have lately been made in sugar, coffee, tea, and many other articles of foreign produce have induced one of the Philadelphia editors to propose nonconsumption associations."



Famous American Homes

Beauvoir

RETREAT TO SERENITY



"THE ORANGES are shining on the trees and our pine-knot fires soar in the chimneys; in their light I try to bury my unhappiness;" thus Jefferson Davis wrote of Beauvoir, the plantation near Biloxi where he spent the last twelve years of his life. His childhood too was spent in Mississippi for, though he was born in Kentucky in 1808, when he was still an infant his family moved to a plantation near Woodville.

While serving in the army after his graduation from West Point, Davis fell in love with Sarah Knox Taylor, daughter of a future President. Colonel Zachary Taylor opposed his suit, however, principally because he was unwilling to have his daughter marry a soldier and it is said that Davis challenged him to a duel but eventually the young couple were married. Resigning from the army, Davis took his bride to Mississippi but within three months she died of malarial fever.

Varina Howell who became Davis's second wife reported on first meeting him that she found him "refined and cultivated" in spite of being a Democrat but would never like him as well as his brother Joe. Nevertheless, their marriage was marked by deep and enduring devotion. At one time Davis, who frequently suffered from ill health, would have lost his sight had it not been for his wife's care.

During the Mexican War Davis re-entered the army and won the nation's homage for his heroism at the battle of Buena Vista where, though wounded, he continued to lead the attack. Within twelve months he became Congressman, colonel, brigadier general and Senator. Later, he served as Secretary of War under President Pierce.

Memorial Arch at main entrance to Beauvoir

Davis was in the rose garden at Brierfield, his Mississippi plantation, when word came that he had been appointed President of the Confederate States. As he had aspired to command the Southern armies, he received the message so sadly that his wife feared it told of disaster.

Broken in health and spirit after the tragedy of war and his imprisonment in Fortress Monroe, Davis tried various occupations and for a time was head of an insurance company. At length he found sanctuary at Beauvoir which the owner, Mrs. Sarah A. Dorsey, generously put at his disposal, and here Davis devoted himself to writing. Of his six children all four sons died before Davis passed away in 1889.

Built soon after 1855, Beauvoir is now maintained as the Jefferson Davis Shrine by the Mississippi Divisions of the United Sons of Confederate Veterans and the United Daughters of the Confederacy.

* * *

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The Long Haul Truck Industry and Pacific Intermountain Express Company

JAMES W. SHOEMAKER

LONG HAUL TRUCKERS are heading for a crossroad. Straight ahead lies the well-traveled highway of merger and expansion which in the past has meant that small units of a large industry were consolidated into substantial corporations. This is the highway the railroads followed a century ago when they were spliced into big systems; it is the highway that transformed local electric plants into substations.

Today the regulatory climate is more frigid than that in which railroad and public utility systems germinated and grew to maturity, and so the truckers may find the roadway blocked or suited for only limited travel. The final decision on the availability of this path lies with the Interstate Commerce Commission, and an inkling at least of the Commission's thinking is near at hand.

Sometime during the months ahead, perhaps this year, perhaps in 1951, the ICC will rule on the application of the Pacific Intermountain Express Company to acquire the Keeshin properties. If the decision is favorable, a truck company will emerge with over 25,000 route-miles and second in size in the entire long lines truck industry. Second in size sounds impressive, but the second company in this industry will have initial gross revenues of less than $25 million.

One cannot make the mistake of judging the industry by the size of one of its parts for that would mean measuring the proportions of a massive mosaic by one of its myriad pieces. Last year 22,000 for-hire truckers rolled up an estimated $3 billion gross revenue. Only about forty of these 22,000 had a gross of over $5 million, and the giant in the industry grossed only $28,600,000. No for-hire trucker stands accused of the sin of bigness.

For-hire trucking is one segment of the trucking business that in its entirety ranks next to agriculture as the Nation's largest industry. There are an estimated 8 million trucks in the United States, of which about 95% are owned by farmers, large corporations, deliverymen, Federal and state government, and so on. The 400,000 owned by the for-hire operators do business in interstate commerce.

The interstate or intercity truckers are composed of the common carriers of general freight, the common carriers of specific commodities (for example, household goods, petroleum products, automobiles), and the contract haulers. The contract haulers, as the name implies, carry commodities or products under contract with specific shippers. They include some tank fleets for petroleum products, hopper truck fleets for cement and aggregates, stake trucks which carry steel, and others who frequently contract to haul any commodity or product at a rate so cheap that they can only break even by overloading. The contract carrier is poison to the railroads and frequently a severe headache to the motor carrier of general freight.

In 1949 the motor common carrier hauled about 85.6% of the total for-hire tonnage and the contract carrier about 14.4%. The common carrier and the contract carrier combined produced the $3 billion gross mentioned previously. They are the long haul truckers, and all 22,000 are under the jurisdiction of the Interstate Commerce Commission. This discussion is concerned only with the long haul common carrier.

The jurisdiction of the ICC over interstate motor carriers of freight and passengers stems from the Federal Motor Carrier Act of 1935. When this law became effective in 1936, the rights of the carriers to the routes they were then using were confirmed automatically. Thereafter, no new routes in interstate commerce could be established without authority from the commission. Other terms of the Act are broad, and, besides establishing procedures for granting certificates of convenience and necessity for new routes, the law controls rates and among other things provides for adequacy of service, safety of operation, issues of securities, mergers and acquisitions, and uniform systems of accounts. This law, patterned after the laws governing railroads, brought some suggestion of order to a chaotic industry.

Under Federal regulation, quarterly and annual financial and operating statistics are required. For this purpose the carriers are grouped into three classes. Until this year, class I comprised those lines with operating revenues of $100,000 or over, class II those with operating revenues of over $25,000 and less than $100,000, and class III those with operating revenues of less than $25,000. Effective April 1, 1950, this classification was changed to class I operating revenues of $200,000 per year or more, class II operating revenues of over $50,000 but less than $200,000, and class III operating revenues of less than $50,000. So far only class I carriers have been required to submit statements to the commission. The class I carriers have a gross of about $1,200 million or roughly 40% of the total of all long haul carriers.

The class I carriers have grown in number and in the volume of freight handled, according to Table 1, published by the American Trucking Association. These figures show a steady growth in both the number of carriers and an al-

TABLE 1

Year	*Number Class I Carriers*	*ATA Truck Loading Index* (1941 = 100)	*Year*	*Number Class I Carriers*	*ATA Truck Loading Index* (1941 = 100)
1949	2,500 est.	179	1943	1,578	119
1948	2,400	171	1942	1,443	107
1947	2,211	149	1941	1,301	100
1946	2,099	128	1940	1,202	80
1945	2,001	118	1939	1,139	70
1944	1,824	119	1938	1,030	56

most uninterrupted climb in the freight hauled. It may be noted that during this twelve-year period the volume of freight handled by class I carriers more than tripled and the number of operators increased almost two and one-half times.

The $3 billion gross of the for-hire truckers last year contrasts with $7,048 million total revenues for the railroads. Measured in billion ton-miles, intercity hauling grew from about 4.4% of all rail freight in 1926 to 13.9% of all rail freight in 1948. In 1949 rail carloadings were down 15.9%, while intercity truck volume increased 4.4% to a new high record.

REASONS FOR GROWTH OBVIOUS

Reasons for this growth and the promise for its continuance are fairly obvious. Improved highways have meant faster travel for trucks running on more reliable schedules. Trucks can go wherever a street or highway exists, and so the extension of the highway system has literally paved the way for the extension and betterment of the truck lines.

This type of transportation has a fluid flexible quality which lends itself to the needs of shipper and consignee for a fast, convenient economical service—a service that picks up a shipment at the door of one customer and sets it down at the door of another a continent's length away. All this has meant an ability to ship and receive merchandise and supplies at frequent intervals in small lots, which in turn permitted the curtailment of costly warehousing and the reduction of inventories.

In its 1949 annual report, Associated Transport describes a plan for the garment trade in New York which eliminated storage of raw materials and finished products entirely. The raw materials are trucked in from the Carolinas on carefully timed schedules so that they arrive early in the morning before the workers. On arrival, the workers find the goods they need for one day's output ready near their benches. At night trucks load the finished garments and deliver them to distant points.

One of the primary factors in the growth of the industry has been the slow but sure emergence of financially responsible companies operating a dependable and reliable service on regular schedules. Last year Pacific Intermountain Express settled all loss and damage claims in an average of 14½ days, perhaps one fourth to one sixth of the time required for a rail settlement. Collections on COD shipments are remitted the same day as received, and, if the check is large, it is airmailed. One truck line official expresses the hope that his company can eventually pay the shipper on the same day his company receives payment from the consignee. This is a far cry from the days when shippers sometimes suspected and perhaps with justice that COD collections became a temporary part of the truck line working capital.

Growth and continued cumulative inroads on other forms of transportation, notably the railroads, have generated problems for the motor carriers. A century or so ago the railroads drove the highway carriers off the highways. Today the cycle has come full circle with the mechanized highway carrier the aggressor.

Chief among the as yet unsettled problems is: Does the trucking industry, and particularly the long lines, bear full share of the cost and maintenance of the highways? The dispute is bitter, and the literature discussing the question bristles with such titles as "What's This about a Free Ride for Trucks?" "Transportation by Taxation," "Do Big Trucks Pay Their Way?" "Trucks Are Paying Their Way and More," and "Railroad Hocus Pocus."

The industry is well aware of the public attitude; in fact, the Associated Transport annual report carries a picture of a motorist inching along behind a truck. The better companies strive to overcome the public animosity through courtesy and safety campaigns.

Drivers for Pacific Intermountain Express and other companies are instructed to stop and give assistance to any motorist in distress. PIE files bulge with grateful letters from people who have been assisted on the road, in some instances from people who owe their existence to PIE drivers. Since only a small percentage of the millions of motorists on the highway experience truck company helpfulness, the public attitude of challenge is not thereby lessened. This too has a bearing on the problem of truck taxation.

The AAA program urges further study to determine the additional cost of highways for heavy vehicles. Such studies are needed, for as yet there is no final answer to this hotly disputed question.

Many states have made surveys, but these are local in character. One report that is widely quoted by those who advocate higher taxes for trucks is that of the subcommittee of the Standing Committee on Transportation of the California Senate. The report was made to the 1949 session of the California legislature and said in part:

> The problem of fair taxation of heavy vehicles is at once the most difficult and the most controversial in the field of user taxation. Directly involved are such basic issues as the equitable distribution of the highway burden between small and large vehicles and the maintenance of fair competition between highway and other carriers. Despite research that has been done in the field, no precise answers to many questions have been discovered . . . A special study made by the Division of Highways at the suggestion of the Joint Fact Finding Committee revealed that the provision of highways adequate for heavy commercial vehicle use increased costs of highway construction substantially.
>
> All construction projects designed and let to contract during 1947 amounting to $43,600,000 in total cost were analyzed. It was found that the cost would have been $35,700,000 had the highways been designed for light vehicles only. Heavy vehicles were directly responsible for $7,900,000 of the costs of these particular projects. In addition, they should, of course, bear a fair share of the ordinary joint costs of highway construction. Allocating these joint costs to heavy vehicles according to relative use as reflected by ton-miles of operation, made them responsible for $16,065,000 in addition to the direct costs of $7,900,000, or a total of $23,965,000.
>
> It is concluded that heavy vehicles may reasonably be held responsible for 55% of the costs of constructing state highways. Obviously they should also share in the joint burden of highway maintenance and administration. On the ton-mile basis, they should be assigned 45% of these costs. For all expenditures, then, heavy vehicles would be held responsible for about 52% of the total costs, according to this study . . . Their estimated user payments under the present tax system amount to less than 35% of the total. [Truckers

> contend that a large portion of the "total" was used for secondary roads which are not traversed by heavy trucks and for parkways and the Pasadena Freeways which are prohibited to trucks.]
>
> Even if general agreement upon basic principles of heavy vehicle taxation could be reached, the translation of these conclusions into a feasible tax system is by no means simple . . .

It is perhaps significant that the committee did not suggest that taxes on heavy commercial vehicles be increased substantially, even though such higher taxes could be justified. Instead they directed the Department of Highways to continue its analysis of highway costs attributable to heavy vehicles. This report is quoted at some length because ordinarily the reference to it is likely to omit all but the 52% total cost of state highways and the 35% payments for all roads. This would indicate that truck taxes should be increased 50%, whereas the committee reached no such definite conclusion. It believed, rather, that the data available were still inadequate. There are numerous state studies along this same line.

Our roads are wearing out faster than they can be replaced for two reasons. Highways have an average life of twenty to thirty years. The most productive years in road construction in our history were the period 1921 to 1934. The peak of 35,813 miles of surfaced roads built in the latter year has not been surpassed. The second reason is the use of roads during the war years without adequate maintenance or replacement and with consequent heavy damage. Highways built in the '20's and '30's were designed for the traffic of that period, and their useful life in many instances is ended, but many are still in use. So highway departments throughout the country are faced with an increasingly burdensome problem of repair and replacement.

Naturally, the problem of highway cost and maintenance make the trucker a vulnerable target and the defense is weak. Spokesmen for the industry rely primarily on the so-called Eastman report published in 1940. This four-volume study which covers the period 1921-37 found that in that period trucks paid more than their fair share of highway costs.

Conditions in the trucking industry have changed considerably since 1937. The number of trucks on the highways has almost doubled in the past thirteen years, and the average load trucks carry had increased from 6.4 tons in 1939 to 8.62 tons in 1946. It is also true that the taxes trucks pay have also increased from an average of $94.74 each for all trucks registered in 1937 to $150.66 per truck in 1948. Whether or not these trucks pay their way is disputed. The American Trucking Association which, in its own words, "now ranks as one of the largest trade groups of its kind in the world," begins a rebuttal to a study made by the railroads with this paragraph:

> By use of a fundamentally fallacious theory and obvious misapplication of sketchy statistics, the railroads have burst into print with another "study" reiterating the tired and bedraggled old charge that motor trucks are subsidized.

Then they got around to the Eastman report. The railroad position is that as heavy taxpayers they are subsidizing a competitor. In this battle the railroads give the widest publicity to the studies made by legislative groups, state highway departments, and a few reports they have themselves sponsored—anything that lends support to the railroad view.

It is difficult to say whether a truck does or does not pay its way in a particular state when license fees and other taxes exclusive of gas taxes range from $71 in Massachusetts to $1750 in Colorado. The truck may well be paying its full share in Colorado and an infinitesimal part of its way in Massachusetts. Who can say that a truck does or does not pay its way with a gross load limit of 42,000 pounds in Kentucky and 122,000 in Michigan? Both states have an 18,000-pound load limit per axle, but the Michigan operation must be the far more economical.

NATIONAL STUDY IS NEEDED

Some national study in the light of 1950 conditions is badly needed to illuminate this whole problem. The Eastman report is antiquated and can be relegated to the archives of historical research. The American Trucking Association is said to be about to undertake an "impartial" study. The railroads have asked the ICC for a general investigation of long haul highway transportation *and* in the same breath asked that the commission make no decision on 19 pending applications for authority to establish long haul motor routes, "many of them extending from ocean to ocean and from the Gulf to the Pacific." Since a survey might require years, the truck line applications would be held up indefinitely.

A desirable study should be the product of neither the railroads nor the truckers. The job ought to be undertaken by some impartial and unbiased agency either within or outside of the Government.

In a small degree the railroads are on both sides of the fence, for they own about 100,000 trucks. Some of these operations are designed to remove unprofitable LCL business—and note that word "unprofitable"—that cannot be handled economically by rail. In many cases these trucks replace a local freight train and make deliveries to a division point. The St. Louis and San Francisco has a wholly owned motor carrier subsidiary, organized to conduct common carrier motor truck and passenger operations and to perform substitute service by highway for the railroad.

The San Francisco's motor operations cover approximately 3,500 miles and generally parallel the railway in eight states. As a result, the railroad has been able to discontinue many unprofitable local freight trains, eliminate many local stops of passenger trains, and handle mail, express, and other head end business faster and more economically. The service of the long haul trucker has also become a necessity.

In the past few years the railroads have applied for and secured a number of blanket rate increases. Blanket increases could be obtained quickly whereas a multitude of increases on individual commodities would have taken endless hearings and would have required years.

These over-all increases disturbed the rate relationship among many commodities, and the roads are now going through the laborious process of reducing rates on this commodity and that in order to restore historical relationships. In addition, this procedure aims to recapture some of the business lost to trucks and water transport.

So far the trucking industry and some of its more pressing problems have been discussed in broad outline. Against this background Pacific Intermountain Express and its proposed acquisition of Keeshin, which is the largest proposed consolidation in this industry, can be treated in more detail, along with some reference to other companies in the industry.

ASSOCIATED TRANSPORT

This company is the result of a merger of seven truck lines in 1942. In 1943 it did a gross business of $22,672,928 and had a net loss of $1,247,682. In 1949 its gross operating revenue was $28,659,166, and the net profit was $1,478,799. Associated is the largest company in the industry. The territory served is roughly the Atlantic Seaboard from Massachusetts to Georgia and inland as far as Cleveland. The head office is in New York City.

CONSOLIDATED FREIGHTWAYS

Consolidated was organized in 1929 as a holding company which purchased four lines. Others have been added since. In 1930 the company had gross income of $901,908 and in 1949 a gross income of $18,461,770 and a net profit of $875,740, which includes profit from subsidiaries. The subsidiaries include the Freightliner Corporation, a manufacturer of trucks and trailers. Associated Transport has a similar subsidiary, Brown Equipment and Manufacturing Company.

Consolidated has pioneered many innovations in the truck industry and does specialized trucking, although its principal business is intercity. One unusual feature is the use of rail cars to supplement its motor equipment in handling traffic from the East. Its lines serve the Pacific Coast from San Francisco north to Seattle and eastward to Minneapolis, St. Paul, and Chicago. The head office is in Portland, Oreg. The company is second in size in gross revenues.

U. S. TRUCK LINES OF DELAWARE

This is a holding company with its head office in Cleveland, Ohio. The intercity carriers in the system serve Ohio and a few near-by states. The company also owns several contract carriers, and its metropolitan delivery services are available in a number of cities, including Buffalo, Cleveland, Chicago, New Orleans, Detroit, Toledo, San Francisco, Oakland, and Los Angeles. The company was organized in 1933. Last year consolidated gross revenues totaled $17,951,635, and net income was $1,204,349, down from the previous year primarily because of strikes in the territory served. Gross in 1948 was $19,531,130 and net $1,503,640. This company is third in size in the industry. Since it does a large contract carrier and local cartage business, no further reference will be made to it.

PACIFIC INTERMOUNTAIN EXPRESS COMPANY (PIE)

This company incorporated in 1940 and acquired three truck lines through purchase. In 1941 gross income totaled $1,163,091, and there was a loss of $39,228, the only one in the company's history. In 1949 gross operating revenues were $14,125,629 and net profit was $1,009,429. Principal routes extend from San Francisco, Oakland, and Los Angeles to Salt Lake City, thence eastward to Denver, Kansas City, St. Louis, and Chicago. The company operates entirely in interstate commerce. The head office is in Oakland, Calif. It is fifth in size in the industry.

KEESHIN FREIGHT LINES

This is a holding company for Keeshin Motor Express and other subsidiaries. Operating revenues in 1949 were approximately $10 million. The Keeshin lines serve most of the principal cities in the area east of Chicago roughly bounded by Buffalo, Boston, New York, and Washington. Keeshin will be discussed in some detail in connection with PIE. In 1948 Keeshin had net income of $336,364 from operating gross of $7,636,966.

Table 2 will give some idea of the size and operating efficiency of these companies. All figures are for the calendar year 1949. The column on the extreme right gives the composite percentage figures in these classifications for 910 class I intercity motor carriers of general freight for the year 1949.

By the usual standards of corporate size, the leading companies in the long haul truck business are not large. From the descriptions of these corporations it may be seen that they developed from the merger or purchase of small units in the industry.

Associated Transport, formed in 1942, failed to get in the black until 1946. At the 1949 year end arrears on the preferred totaled $40.36 per share. However, Associated is very cost conscious; it operates today with about 2,000 employees less than in 1943 and with about 10% fewer pieces of equipment; its operating ratio has declined from the 105.77% in 1943 to the 91.53% attained in 1949. For the first two months of 1950, net income was reported as 2 ½ times that of last year although gross expanded only 20%.

Keeshin, which had a rapid expansion in 1935, went into receivership in 1946 and was really only profitable under its trustees. Consolidated lost money during the war years in moderate amounts but has increased its net every year since that time.

The situation today differs from that of the past. Now leaders in the industry have proved or are proving that by the application of modern business methods the trucking business can be consistently profitable. Companies have mastered their internal problems and have become efficient operators ready for expansion. The inefficient must eventually be absorbed by the efficient or go out of business.

Pacific Intermountain Express, barring its first year of operation, has been consistently profitable. Table 2 shows that PIE was able to bring more of its gross down to net than any of the companies used in this comparison. That result is not the happy circumstance of an unusual year, but rather the product of a steady pressure on controllable expense. The company is now ready to expand its operations through a major acquisition—the purchase of the Keeshin system. If this step is completed, it may mark a significant advance in the consolidation of truck lines into larger systems.

PIE originated in San Francisco in 1940 and represented the purchase and merger of three truck lines which taken together had rights as far east as Denver. In 1944 rights from Denver to Chicago were leased and subsequently purchased in 1947.

In its first full year of operation, 1941, PIE had total gross revenues of $1,168,000. In 1949 the company's net income of $1,009,429 was only slightly less than its total 1941 gross. Earnings in 1949 were equivalent to $4.82 per share on the 209,305 shares outstanding on December 31, 1949. Since the year end additional shares were sold through rights, but for the twelve months ended March 31, 1950, earnings were equivalent to about $4.52 per share on 279,073 shares of common.

Four years ago a buyer might have paid $10 to $14 per share for PIE common stock. He would today own 2.5 shares selling, at this writing, at about $28 per share. Since 1946 holders on the basis of one original share have received $4.70 in dividends and rights worth about $7.50. Profit to the stockholder is the reflection of a constantly improving operation.

In 1949 PIE equipment ran on regular schedules, and the trailers were filled within 3.5% of their maximum capacity, which compares with 12% dead space in the first four months of 1947. Last year the average haul was some 1,600 miles, compared with 1,315 miles in 1946. Also in 1949, PIE tractors averaged almost 200,000 miles on the road, over double that for the industry!

BUSINESS RESTS ON BROAD BASE

The business of this company rests on a broad base, for in a year PIE does business with approximately 150,000 different firms in the United States. Like other truck lines, pickup trucks gather the loads at the doorsteps of customers and carry the shipments to a PIE terminal, where the merchandise is sorted and loaded into a semitrailer. The semitrailer is hauled across country to its destination, and here the shipment is unloaded, placed in another pickup truck, and delivered to the doorstep of the consignee or to the terminal of another truck company if the shipping point lies outside the PIE lines.

From a doorstep in San Francisco to a doorstep in Chicago takes about seven days or perhaps three or four days less than rail freight. Rates are about the same as or slightly below LCL freight. Each shipment is checked each time it is handled. At all major terminal points but Kansas City it is palletized and moved by fork lift truck, a method that minimizes possible damage.

If a shipper wishes to locate a shipment en route, it can be accomplished in four or five hours through the company's central dispatch control. Through this system PIE

TABLE 2

Earnings Are for the Year 1949. Balance Sheet Figures as of December 31, 1949

	Associated Transport	*Total*	*Consolidated Freightways, Company Only*	*Total*	*Pacific Intermountain Express*	*% Total*	*910 Truck Lines*
Operating Revenues	$28,659,166	100.00	$18,461,770	100.00	$14,125,629	100.00	100.00
Operating Expenses							
Equipment, maintenance, & garage	4,076,531	14.22	2,926,439	15.85	2,624,427	18.59	10.60
Transportation	10,642,050	37.13	5,946,276	32.21	3,824,871	27.06	44.18
Terminal	4,104,114	14.32	3,938,016	21.33	1,929,895	13.66	13.38
Traffic, sales, advertising	767,295	2.68	477,222	2.58	381,069	2.70	2.93
Insurance & safety	1,785,400	6.23	715,563	3.88	516,862	3.66	5.87
Administrative & general	1,514,552	5.28	960,490	5.20	779,279	5.51	7.02
Depreciation	1,312,167	4.58	765,490	4.15	661,059	4.68	3.64
Operating taxes & licenses	1,474,930	5.15	1,156,290	6.25	843,058	5.97	4.31
Operating rents, net	555,325	1.94	371,652	2.01	847,098	6.00	2.80
operating ratio		91.53		93.47		87.83	94.73
Net operating revenue	2,426,802	8.47	1,206,302	6.53	1,718,011	12.17	5.27
Net Income after Taxes	1,478,800	5.16	656,740	3.57	1,009,429	7.15	
Capitalization			(Consolidated)				
Equipment notes	3,035,296		2,954,706		693,398‡		
Mortgages	689,622		524,918†		969,067		
Preferred stock	4,006,500*		......		......		
Common stock	1,325,292		1,121,730		1,046,525		
Surplus	968,043		2,511,087		2,403,481		
Total capital & surplus	6,299,834		3,632,817		3,450,006§		
Miles route	23,086		12,000		10,500		
Units of equipment	3,043		1,440		765		
Employees	3,750		2,358		1,473		

*Preferred arrears as of December 15, 1949, $1,616,917.50 equivalent to $40.36 per share.

†Mortgages of terminal subsidiary.

‡Equipment notes paid in full since December 31, 1949.

§As of March 31, 1950, net worth totaled $4,814,000 reflecting sale 69,768 additional shares common through rights.

knows the location of every line haul tractor and semitrailer that it owns or leases; it knows whether or not the unit is loaded, available for use, or out of service for repairs.

Through its teletype system, the company knows twenty-four to forty-eight hours in advance of loading whether or not the freight available for a particular schedule is light or heavy on balance. If the tonnage is light, some of PIE's 46 salesmen in one of nine cities must find additional freight.

PIE SPENDS SUBSTANTIALLY ON MAINTENANCE

Table 2 shows that PIE spends substantially more on maintenance than the industry. As every piece of line haul equipment goes to or passes through Denver at regular intervals, the company built a maintenance and repair shop there at a cost of $484,000. This shop was opened last July and employs 180 mechanics. Each tractor and semitrailer combination is inspected, serviced, and washed when it passes through Denver. Each tractor is completely overhauled in the frame at 90,000 to 100,000 miles; at 180,000 to 200,000 miles the motor is pulled out and a new motor rebuilt in the shop is installed. The company believes that its rebuilt motors are better and have closer tolerances than the manufacturer's originals.

PIE'S year-end balance sheet carried no liability for collected and unremitted COD's, for remittances for COD shipments are made on the same day that they are collected.

Until recently, the difference in the weight and length laws for tractor-trailer combination in various states traversed compelled the company to unload and reload all shipments at Denver. Last year the laws of Kansas were modified, and so were PIE operations. The company now uses a standard 35-foot semitrailer throughout its system. One of these units can leave the Oakland terminal with a 42,000-pound maximum load and an over-all length of 51 feet. At Denver this load is lightened to 37,000 pounds and a shorter tractor hooked on to the same semitrailer to shorten the rig to 50 feet. At Kansas City the load is again lightened, this time to 32,000 pounds, and a still shorter tractor is hooked on to the 35-foot semitrailer, which shortens the over-all length to 45 feet. The same trailer travels the entire distance from Oakland to its destination. (Actually most trailers are full before they are up to load limit and the system-wide average load is about 28,500 pounds.)

These changes, effective early this year, have meant an operation savings of about $15,000 to $20,000 a month, and a saving of 15 hours' time in Denver.

Employees are selected by a personnel department on the basis of a standard aptitude and intelligence test. The engineering department tests parts and equipment and carries on some research. It recently produced an improved design for truck refrigeration.

On January 1, 1947, PIE switched its depreciation policy from a straight line basis to a declining value basis. In the past three years this has meant a charge of $348,000 more to depreciation than would have been deducted on a straight line basis.

The only tires and tubes on the PIE balance sheet are those inventoried in its shops for replacement—all tires and tubes in use on equipment, even new equipment, have been written off entirely. Tires and tubes in use but not on the books represent a value of about $250,000.

All PIE real estate is owned by a 99.63% owned subsidiary which buys land; finances and constructs terminals, offices, and the like; and leases the improved property to its parent. Future improvements are paid by PIE and charged off over the life of the lease. This method eliminates the necessity for ICC approval of real estate transactions. The real estate is estimated at a million dollars more than the value stated on the books.

The company's rights to its 10,500 miles of motor carrier routes represent an extremely valuable asset, probably worth $1 million, which is not carried on the books.

This in outline is Pacific Intermountain Express as it stands today ready for expansion, through the absorption of the Keeshin system. Keeshin was a small operation which ballooned into a large enterprise just before the effective date of the Motor Carrier Act in 1936. In order to expand its rights to eastern routes, which would be frozen in under the "grandfather" clause of that law, the company acquired a number of existing carriers. The expansion was rapid, and Keeshin was never able to digest all that it had tried to swallow. In 1946 it went into bankruptcy and for the past four years has been operated by trustees.

Late last year, PIE with the approval of the ICC acquired approximately $1,950,000 of the defaulted notes of the Keeshin holding company at 13½% of par value. PIE then submitted a cash bid of $1,940,000 for the Keeshin properties and has paid $440,000 of this amount on account, including the cost of the notes and a $175,000 good faith check.

Under the plan of acquisition PIE will assume about $1,500,000 of trustee's obligations, largely covered by current assets. The $1,940,000 cash payment will be made for net tangible assets that on January 31, 1950, had a net book value of $2,157,629. Good will and the operating rights to 15,500 route-miles would be acquired at no cost. Operating rights east of Chicago have been selling at $40 to $100 per mile, depending on the territory served, exclusiveness of the rights, and other factors.

The PIE bid has been approved by the court and awaits approval by the Interstate Commerce Commission. Action on the application, which is bitterly opposed by competing railroads, some competing truck lines, and some shippers, is not expected before fall and may not come until 1951.

SECOND LARGEST COMBINATION IN THE INDUSTRY

Assuming that the ICC approves this purchase, the resulting PIE-Keeshin combination will be the second largest company in the industry. It can, however, be a substantially larger operation than the addition of PIE's $14 million gross to Keeshin's $10 million gross would indicate.

Today PIE trucks pass through Kansas City in less than five hours. In Chicago, however, freight destined for the east must be unloaded, hauled to an eastern carrier's dock, and there reloaded by the interline carrier. This operation aevrages about 69½ hours. A through coast to coast route will eliminate about 2½ days in Chicago and will give truck shipments approximately the speed of railway express at around one third the cost. The prospect for increased business is not an idle fancy.

About one third of Keeshin's equipment was purchased in the last three years, but the other two thirds is ten years old or more. It will probably take $3 million to replace the antiquated equipment with new. This equipment financing can probably be done through banks. In the past when PIE was a far less secure risk than it is today, the company borrowed up to $2 million to finance its equipment needs through the medium of five-year 4% conditional sales contracts.

At the 1949 year end PIE showed a balance of $693,398 due on such obligations against a total of $1,126,416 at the end of 1948. A few weeks ago PIE paid all its remaining equipment notes and is now free of debt except current liabilities and the mortgage debt of its real estate subsidiary.

Over the next five years some $6 million or $7 million should be spent on the Keeshin terminal properties. Such improvements can probably be financed through insurance company loans or purchase lease back agreements.

The PIE-Keeshin combination will not be the first coast to coast operation, as four years ago Denver-Chicago Trucking Company acquired rights which extended its Los Angeles-Chicago operations on to New York. However, as was stressed earlier in this discussion, PIE is the largest and in many respects the most significant combination.

Today trucks and long haul intercity carriers are flexible, efficient methods for carrying certain classes of freight. Slowly but surely the better truck operators have learned to build effective organizations governed by cost controls that produce profits. The development and evolution of these methods have now reached a maturity that permits their application to larger enterprises.

FORERUNNER OF OTHER MERGERS

There are reasons to believe that the PIE-Keeshin merger may be the forerunner of others. Credit problems are negligible, for the ICC credit rules require billing within seven days and payment within seven days after billing. PIE receivables average 48% of one month's revenue. Inventories, too, are small and represent only about 1½% of total assets.

The vast majority of the companies in the business are privately owned. Many of these owners have seen their proprety grow to valuation measured in millions of dollars. It may be that some among them are beginning to realize that estate and inheritance taxes will either force the liquidation of their companies or take a substantial portion from the net worth of the enterprise. They might rest in greater comfort if their shares had a public market.

Too few trucking company shares have a public market for any conclusions to be drawn, but certainly operations such as PIE's invite investment confidence. An industry whose 22,000 units produce $3 billion gross revenue is ripe for expansion and consolidation—authorities permitting.

SECURITY ANALYSTS are invited to call on us for information concerning our client companies:

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DRESSER INDUSTRIES, INC., *Cleveland, Ohio*
DREWRYS LIMITED U. S. A., INC., *South Bend, Indiana*
PFEIFFER BREWING COMPANY, *Detroit, Michigan*
ROBERTSHAW-FULTON CONTROLS CO., *Greensburg, Pa.*
ST. LAWRENCE CORPORATION, LTD., *Montreal, Canada*
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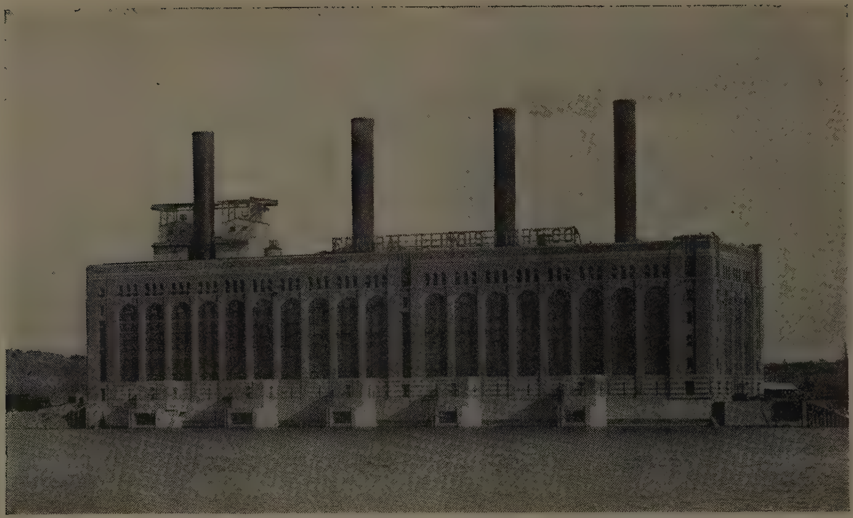


R. S. WALLACE POWER STATION . . . EAST PEORIA

ALL **PLUS** EXCEPT ONE —AND ALL MEAN PROGRESS IN SERVICE TO PRIME AREAS OF ILLINOIS

12 MONTHS ENDED MAY 1950 — COMPARED WITH YEAR 1940

Gross Revenues	$ 18,691,789	+	91%
Net Income after Preferred Dividends	2,460,998	+	103%
Electric Sales—kwh	766,911,786	+	106%
Natural Gas Sales—therms	55,165,371	+	154%
Gas space heating sales—therms (increase over 1940)	22,048,490	+	95%
Space heating customers	16,157	+	208%
Electric customers	95,145	+	27%
Farms served (99% of all farms in service area)	7,211	+	37%
Gas customers	73,936	+	36%
Average residential electric rate—per kwh	2.38c	—	25%
Average kwh per residential customer	2,128	+	84%
Rated Generating Capacity—kw	184,400	+	62%

An additional 60,000 kw unit is under construction at R. S. Wallace Station for operation in 1952

Serving 79 Illinois communities in three divisions:
Peoria (second largest city in Illinois)
Springfield (state capital)
DeKalb (farming and industrial area west of Chicago)
Total population 385,000

Earnings per common share 12 mos. ending May 31	$3.07
Common dividends paid at annual rate of	2.20

CENTRAL ILLINOIS LIGHT CO.

COMMON STOCK LISTED ON N. Y. AND MIDWEST STOCK EXCHANGES

GENERAL OFFICES: PEORIA, ILLINOIS

The Machine Tool Industry

FREDERICK V. GEIER

MACHINE TOOLS come into the news infrequently. In wartime, they rate top priority. Afterward, a great war surplus of machines is featured as a dire threat to the machine tool industry. Now, five years after V-E Day, the war surplus has been largely disposed of, with only a very modest number of machines placed in strategic reserves. Today, the machine tool industry is busy on its undramatic daily job of building the machines that raise production and lower costs.

Machine tools might be described as the machines nobody knows. They are the power-feed machines which cut metal, removing it in the form of chips. There are five basic types of tools and tool motion. In the planing machine, a simple tool planes off metal much as you shove snow from your sidewalk with a snow shovel. In the turning machine, a simple tool peels off metal much as you pare the circular peel around an apple. In the drilling or boring machine, the tool spirals its cut into a hole. The milling machine uses a rotary cutter, working not unlike a buzz saw. The grinding machine employs a grinding wheel with abrasive grits to rough or finish a flat or cylindrical surface.

Machine tools range from simple low-power units to those of great size, weight, and complexity of mechanism and function. They vary as much in power, size, and complexity in the field of metal cutting as do elephants and earthworms in the animal kingdom. It was Dexter Kimball, Dean of Cornell University, who first pointed out that machine tools were the master tools of industry. It was General George C. Marshall who, eleven months before Pearl Harbor, called machine tools the "keystone of the entire procurement structure." It was the Robert Morris Associates in their credit rating who listed machine tools as ranking next to standing timber in rate of capital turnover. In his recent book, "Controlling Factors in Economic Development," Dr. Harold G. Moulton, commenting on the increasing productivity of machines as a factor in multiplying man-hour productivity, states: "Modern machine tools are incomparably superior in performance to those of only two decades ago." He concludes his discussion of the scientific and technical factors by saying: "Improvements in the quality of capital instruments have been the cutting edge of economic progress."

MACHINE TOOLS INSTALLED IN THE UNITED STATES

		% over 10 yr	*% over 20 yr*
1925	840,000	44	
1930	1,152,000	52	
1935	1,138,000	67	
1940	1,060,000	72	
1945	1,711,000	38	
1950	1,762,000	43	21

The machine tool industry is small, comprising about 250 firms in the United States. There are over 1,000 such firms in the world. Most machine tool manufacturing plants are small, with from 25 to several hundred employees, although several plants employ 2,500 or more. For some months the total industry employment has been under 40,000, which contrasts with a wartime peak of 122,000 and a prewar employment level approximately the same as the present level. The machine tool population of the United States reveals an interesting insight into the state of the Nation's economy. The number of machines in use by five-year intervals and the percentage of them over ten years old are shown in the accompanying table.

From 1925 to 1930 the number of machines in use increased from 840,000 to 1,152,000 and then down the stagnant decade of the 1930's declined to 1,060,000. The impact of the war brought the number of machines up to 1,711,000, with a further slight gain for the past five years to 1,762,000. Perhaps even more significant than the number of machines installed is their physical age as indicating whether the United States is keeping its productive equipment up to date. From 1925 to 1940, the number of machines over ten years old rose from 44% to 72%, a matter of grave concern. Even with the great volume of machine tools built during the war, the percentage of over-age machines was brought down only to 38%; and since the war the percentage of over-age machines has risen to 43%, with 21% of the total over 20 years of age. Once again, these figures reveal that the United States has been failing to keep its productive equipment abreast of the times.

As for the volume of machine tools built in the United States, shipments during the 1920's ranged from a low of $36 million in 1921 to $185 million in 1929. In the 1930's, shipments ranged from a low of $22 million in 1932 to $200 million in 1939. During the war years, shipments ranged from $424 million in 1945 to $1,320 million in 1942. This wartime peak volume of $1,320 million is often quoted in reviews of the machine tool industry, but it has no significance as to the plant capacity of the machine tool industry or the market for machine tools. This extreme wartime volume was due to failure to prepare the national defense in advance and merely reflects the last minute pyramiding of military industrial requirements. However, the achievement of the machine tool industry in multiplying the 1939 prewar peak output of $200 million by 6½ times in 36 months is significant as showing the resourcefulness and ability of the people in the industry.

Since the war, the yearly shipments of machine tools have declined from $335 million in 1946, successively to $306 million, $288 million, and $249 million last year.

This brings us to the fundamental question: What would be a normal demand or volume for the machine tool industry? We can approach this question in various ways.

Per dollar of U. S. expenditure in peacetime on plant and equipment, machine tool shipments have ranged from 1% in depression years to 3% in prosperous years. From 1920 to 1938, including two depressions, the average was 2.05%. In such typical periods as 1925–28 and 1935–37 the average was 2.5%. During the past three years, 1947–49, machine tool shipments were only 1.5% of U. S. plant and equipment expenditures, clearly a subnormal rate, and very definitely low for a period which has shown a new high record in peacetime economic activity.

Another measure would be the volume of shipments needed to hold the average age of machine tools in use at a stable level. When we recall that during the past five years the number of over-age machine tools in use increased from 38% to 43%, the output of new machines since the war appears below normal by this measure also.

The Bureau of Internal Revenue fixes the useful productive life of many types of machine tools for depreciation purposes at twenty to twenty-five years. On this basis, the normal replacement demand for the machines built twenty to twenty-five years ago would exceed $250 million at current costs without allowance for plant expansions in the United States or machine tool exports to foreign countries. If we use the Bureau of Internal Revenue's depreciation rates, this may be considered equivalent to an annual replacement requirement of 4% to 5% of the number of machine tools installed—a substantially larger volume than previously indicated. But we need to keep in mind that the Bureau of Internal Revenue depreciation rates are regarded by actual users of machine tools as unrealistic, even to the extent of operating as a factor condemning industrial equipment to grow old and rust away, instead of being replaced with more productive machinery that helps to reduce costs and raise the standard of living. Again, by this test, machine tool production has been below the normal level.

From still another viewpoint, it is interesting to note that, in 1948, 1,680 leading manufacturing companies, with an aggregate property account of $54 billion, took depreciation charges of 4.3%. This composite rate, of course, includes a large element of buildings and structures which normally carries lower rates than machinery items. Had anything, even like this composite depreciation percentage charge, actually been invested in replacement or expansion of machine tool equipment, the output of new machine tools would have been doubled. The 1½% ratio of U. S. capital expenditures actually spent for machine tools is considerably below the basis of even this average depreciation charge. Again, a normal expenditure including replacement would have been well above 1½%.

Finally, we might calculate the number of units required to match the growth in population and to provide an overall increase in productivity of the economy of 1½% per year—a figure prevailing over past periods that is often cited in economic discussion.

But from whichever measure we choose it seems clear that current machine tool volume has been lagging behind the U. S. economy and that to be in normal balance the industry's volume should be greater than it has been during the past several years.

This does not mean that the industry is not vulnerable to a sharp drop in volume in keeping with any general business setback. But it does mean that, unless we are going to revert to a stagnant economy or a chronic period like 1932–34, our U. S. users of machine tools have some replacement catching up to do. It is worth keeping in mind that by the end of 1953 the bulk of wartime machine tools will be over ten calendar years old, whereas a great many of these, owing to wartime multiple shift use—and abuse—will have accumulated fourteen to twenty years of work use. Furthermore, almost all these machines built during the war years are actually of the older prewar type of design and construction. Not until the Machine Tool Show in September of 1947 did the machine tool industry deliver any substantial number of new type postwar design machines. As a result, today over 90% of all machine tools installed in the United States are of prewar type. At the rate machine tools were produced in 1948 and 1949, it would take fifty years to replace the present machines unit for unit.

In its recent survey, the *American Machinist* stated: "The remarkable postwar developments in machine tools . . . are being scantily used. Last year the new machine tools produced and installed were only 2% of those in active operation—altogether too few for a prosperous economy."

In fact, to maintain a healthy U. S. industrial economy, not to mention a sound foundation for our national defense, we might say our machine tool equipment must be modernized at the very least in one third of a century. Even allowing for an average increase in productivity of one third, the volume of the past several years is decidedly subnormal—and by any method of calculation.

We have been speaking of machine tools as an industry, but this obscures the dissimilarities of the types of machines, the varied segments of the market, and variations in demand. There are general purpose machines, production-type machines, and special machines; there are basic standard types, and there are specialty types. Some firms make little effort to export; others seek exports aggressively. Some firms confine themselves to one type of machine; others cover varied fields. As a result, changing demand and changing industry trends affect machine tool builders in varying degree. At the moment, this spotty condition prevails. It is reflected in any comparison of the volume and earnings of firms in the industry over the past three years. Although the volume of the industry as a whole declined 20% in two years, several firms maintained their volume and earnings, whereas others experienced drastic declines in sales and profits. This needs to be kept in mind in discussing the outlook for machine tools.

In appraising the prospects for the industry, there are various unknown factors difficult to weigh. However, a number of executives in the industry expect to see from 5% to 20% increase in shipments over 1949. Some of the bases for these estimates include:

1. The industry's export orders have held up quite well, notwithstanding devaluation of currencies.
2. The ECA allotment for machine tools is expected to be similar to that of 1949.

3. The return of lively competition in customer industries is stimulating redesign of products for the consumer and bringing about retooling programs. Well-known examples are the trend in the automobile industry to high-compression engines and automatic transmissions. It has been reported that the Ford engine program alone involves $80 million of machine tools.

4. Cost-reducing and machine tool replacement programs are being considered. The Machinery and Allied Products Institute recently has been drawing attention to its equipment replacement formula. Some important companies are facing up to the problem of the large amount of old equipment in use in their plants.

5. The machine tool industry's field men report an increased number of live prospects to work on.

Based on these circumstances, some machine tool firms could show a good increase in volume, particularly those in special machine lines, as well as those who can readily recover from a poor 1949. Some companies, however, may possibly show a drop behind last year's volume. There is every indication that orders for machine tools will continue selective until such time as a cycle of general replacement of out-of-date equipment develops.

The Hoover Committee study in 1921 cited the highly postponable nature of machine tool replacement demand, and the experience of the 1930's and of the recent post-war period bears this out. Nevertheless, as obsolescence spreads through the machine tool equipment in American industry, the pressure for lower unit production cost mounts. In the United States we always have shown the way to more goods for more people through lower-cost production. This is the proven way to broadening our markets and raising the standard of living. And, again, the newest and most productive machine tools will be a prime factor in cost reduction. If our industrial economy is to advance in the years to come, modern machine tools will play an important part.

* * *

1814

"In 1814 all the banks outside of New England, including the forty-one banks chartered by the Pennsylvania legislature in the early part of the year, were obliged to suspend specie payments, . . . The people were helpless and could do no better than to use their depreciated notes."

It was said "all confidence in the promises of the Government is gone, and public credit has become a spectre, haunting the place where it once flourished."

April . . . New Orleans banks suspended payments.

April . . . Embargo repealed.

August and September . . . Large numbers of banks throughout country, including banks in Philadelphia, Baltimore, and New York, suspended specie payments. Banks in Middle West suspended. New England banks continued to pay in specie.

October . . . Dallas Report to Congress: "The extremity of that day cannot be anticipated, when any honest and enlightened statesman will again venture upon the desperate expedient of a tender law."

Dallas Report (October) . . . "The establishment of a national bank operating upon credit, combined with capital, and regulated by prudence and good faith, is after all the only efficient remedy for the disordered condition of our circulating medium."

October . . . John W. Eppes: "The public credit is at this juncture so depressed that no hope of adequate succor, on moderate terms, can safely rest upon it."

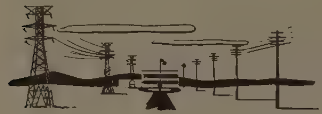
December 3 . . . Mr. Eppes: "A tax upon salaries can only be expedient and proper under arbitrary Governments, where pensions and places are bestowed without a just regard to the public interest."

The 1949 ANNUAL REPORT of The Dayton Power and Light Company shows

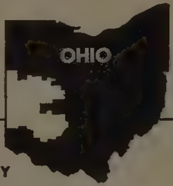
A YEAR OF STEADY PROGRESS

- **Gross Operating Revenues Up 11.8% to $36,875,000**
- **Net Available for Common Stockholders Up 27.0% to $5,519,000**
- **7-Year Construction and Operating Program 61% Completed**

On March 11, 1949, the second 60,000 kw generating unit at the O. H. Hutchings Steam-Electric Generating Station was placed in service. A third 60,000 kw unit will be placed in service in 1950 and a fourth in 1951. At the close of 1949, the rated capacity of the company's electric generating facilities was 331,325 kw.



At close of year, the company's substation capacities were 800,121 kva. Transmission lines extended 705 circuit miles and distribution lines 10,633 circuit miles. A 132 kv transmission line (to be operated initially at 66 kv) will be constructed in 1950.



Our service area, located entirely within Ohio, consists of 6,041 square miles and covers one-seventh of the total area of the state. It has a population of 811,600 and is unique in the large number (280) of cities, towns, and villages it contains.

INCOME STATEMENT OF THE COMPANY

for the two years ended December 31, 1949

	1949	1948
OPERATING REVENUES:		
Electric	$26,500,185	$23,560,778
Gas	9,011,644	8,191,095
All Other	1,362,761	1,239,738
Total operating revenues	$36,874,590	$32,991,611
OPERATING EXPENSES:		
Gas purchased for resale	$ 5,300,973	$ 5,056,793
Electricity purchased for resale	1,115,146	1,501,899
Production of electricity, steam and hot water	7,089,689	7,091,756
Transmission, distribution and general	5,126,734	4,931,625
Total operation	$18,632,542	$18,582,073
Maintenance	2,218,463	1,827,655
Depreciation	2,436,456	2,019,887
Taxes	6,100,487	5,009,987
Total operating expenses	$29,387,948	$27,439,602
Net operating revenue	$ 7,486,642	$ 5,552,009
OTHER INCOME (net)	63,855	327,941
Gross income	$ 7,550,497	$ 5,879,950
INCOME DEDUCTIONS:		
Interest on first mortgage bonds	$ 1,483,375	$ 1,054,708
Other Income Deductions (net) (credit*)	108,226*	175,657*
Total income deductions	$ 1,375,149	$ 879,051
Net income	$ 6,175,348	$ 5,000,899
PREFERRED DIVIDENDS:		
3.75% Series A and B	$ 656,269	$ 656,269
Balance transferred to earned surplus	$ 5,519,079	$ 4,344,630
EARNINGS PER SHARE OF COMMON STOCK†	$2.78	$2.56

†Based on shares outstanding at end of respective years.

These statements are condensed from the 1949 reports of the company. They are published here for general information and are not intended to induce, or to be used in connection with, any sale or purchase of securities of the company. A copy of the annual report will be mailed on request.

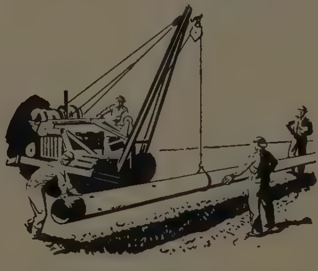
• The year 1949 marked the half-way point in a broad construction and expansion program launched in 1946, and scheduled for completion in 1952. This program, presently estimated to cost $94,263,000, is about 61% completed.

Gross revenues from all services in 1949 reached the all-time high of $36,875,000, reflecting the soundness of our construction and operating programs. Net earnings available for common stockholders totaled $5,519,000. This represented $2.78 per share (compared with $2.56 for 1948) and was calculated on the basis of the number of shares of Common Stock outstanding at the end of the year. Dividends of $1.80 per share were paid on Common Stock during the year. (Early in 1950 the quarterly dividend rate was increased from $ .45 to $ .50 per share.)

At the close of 1949 we were supplying a total of 317,995 customers with one or more of our utility services: electricity, gas, steam heating, water, or hot water heating.

The total electric gross revenues of $26,500,000 were 12.5% greater than in the previous year. Gross revenues from gas were $9,012,000 for the year, 10.0% higher than in 1948. Gross revenues from steam, hot water, and water were $1,363,000, up 9.9% over 1948.

Considered from a wide variety of viewpoints, we are located in one of the most progressive sections of America. A steady expansion of industry, requiring workmen with a high degree of skill, has continued after the war. The decentralization of industry in other parts of the nation has brought to some of the small towns in our area a number of new industries, resulting in increased residential building and commercial activity. Population growth is twice the national rate. Effective buying power is approximately 16% higher than the national average . . . These are all factors indicating there will be a steadily increasing demand for all our utility services over the years ahead.



Now that the supply of natural gas is improved and the demand continues to grow, the company is expanding its distribution system. A total of $1,312,200 was spent in 1949 for the construction of gas facilities, compared with $777,400 for 1948.

THE DAYTON POWER AND LIGHT COMPANY

25 North Main Street, Dayton, Ohio

SERVING 317,995 CUSTOMERS IN A 6,041-MILE AREA IN 24 OHIO COUNTIES

The Outlook for the Second Half*

ALAN H. TEMPLE

THOSE WHO attended this forum last year may recall that at the beginning some of us felt that we should rephrase the assigned topic before we could speak on it with comfort. I find myself under the same compulsion this year. The assigned topic is "The Outlook for the Second Half Year." I shall speak on "The Outlook," period. The reason for this change is that we are now enjoying a business boom. I do not feel that I should squander my ten minutes in speculating whether the boom is to end before December 31, 1950, or not until after January 1, 1951. The really important matter is to consider here together the elements that make up the boom and those that influence the outlook. So far as the timing of the turn is concerned, psychological factors may easily dominate.

PRESENT ACTIVITY IN HOUSING AND AUTOMOBILES

The primary supports of our present activity are in housing and everything that goes with it, and in automobiles. Housing and household equipment and automobiles in turn are supported by a steady expansion in the use of housing credit and consumer credit. This credit is provided by lending institutions which are extremely strong and liquid, and it is issued to people whose debts in the aggregate are still historically low, measured in relation to their enormous holdings of liquid assets, including currency, bank deposits, and savings bonds. Among these institutions only the commercial banks are as yet under any restraint by the monetary authorities, and that restraint—which is in the form of Federal Reserve Bank sales of Government securities to keep a rein on bank reserves—has been so mild that I dare say some of you are surprised to know that it exists or at least that I bother to mention it. In housing credit the official policy is to encourage expansion, and in consumer credit the only brake is the good sense of lenders. I see nothing in credit or monetary prospects to repress demand seriously during the second half year. On the contrary, still more borrowing is to be expected.

GOVERNMENT PURCHASES HIGHEST FOR PEACETIME

Other sources of demand should be mentioned. Government purchases of goods and services—Federal and local—are the highest ever reached in peacetime, and will continue so. They are being financed at a deficit, which means that monetary purchasing power is being and will be created, instead of merely being transferred from the taxpayers to the Government. Business expenditures on plant and equipment have not declined so much as was generally expected six months ago. Exports have dropped, but foreigners are not spending all the dollars that are coming into their possession and exports are not likely to drop much further. Finally, business investment in inventory is increasing and I think will increase more. The markets in 1950 have derived strength from the inventory curtailment last year and also from the price adjustments then made. All this adds up to a strong position and to assurance of high employment and productive activity for at least a few months, even if buying should slacken.

INFLATIONARY FORCES ON THE WANE

Because of the strength in demand and the inflationary operations, people are concerned to know whether we are off on another inflationary binge, with rising prices, a wage-price spiral and a sharp expansion of credit. Monetary influences lend support to this theory. Nevertheless, the opinion that I wish to express here today is that inflationary forces will not carry prices and trade very much higher, and that they will not dominate the situation many months longer, perhaps not even until the fourth quarter of this year.

RESERVE POOL OF LABOR LARGE

First, consider the cushions. Since the primary postwar inflationary movement ran its course in the autumn of 1948, many billions of dollars have been spent either in additions to the productive capacity of the industries or in increasing the productivity of existing capacity. The reserve pool of labor upon which employers can draw is larger. My point is that the "flash point" at which inflation explodes is higher.

CLOSE TO SATISFACTION OF SHORTAGES

On the demand side we are closer to the satisfaction of the shortages accumulated during World War II. We are producing the things which are still short, mainly automobiles and housing, at an almost fantastically rapid rate. We are producing automobiles at this moment at an annual rate of 9 million cars. We are producing housing at an annual rate of 1,500,000 units. Take any figures reached during previous booms and adjust them for increases in population and in family formation, and you will find that we have never seen anything like it.

Now I share with other economists the belief that the wants of people are infinite. But their wants for specific things and their capacity to consume specific things are not infinite. Specific markets become saturated. When major markets become saturated, the labor and materials they have been using are not turned to production of other things without friction. Readjustments set in which are complicated by changes in psychology. How long can we market automobiles at a rate of 9 million annually? I don't know, but I don't think it will be too long. What will be the impact of slackening buying and inventory adjustment in the great automobile area?

Again, let us consider that in some great areas the impact of demand is significantly lower than it was in the primary postwar inflation. The props of plant and equipment buying, export demand, and agricultural purchasing power in real terms are still strong, but they are not so strong as they were two years ago.

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*Panel discussion at 34th annual meeting of the Conference Board, May 18, 1950.

INFLATIONARY BIAS WILL BE MODERATED

These remarks are intended to suggest that we should not concentrate our attention too exclusively on the inflationary powers of the Government deficit, and that we give heed to the possibilities of reaction in nonmonetary areas, such as will likely follow an extended period of supercharged automobile and housing activity, accompanied as it must be by doing more business on borrowed money and by inventory accumulation. I put this as a rather negative comment on the inflation danger, instead of a positive prediction of a sharp downturn before the end of the year, because I find the points of strength—financial strength, improving productivity, and others—still very impressive. I doubt that anything can happen to us in the next six months that will hurt very much. What I do dread is that our thinking may be led astray by inflationary expectations, by ascribing too great influence to the Government deficit and too great power to Government generally. For this "inflationary bias" that we are all thinking about, originating in political and social policies, will be moderated by another "bias," namely, the bias that comes from technological improvement and the lowering of the real costs of production. Even more important for our present purposes, the operation of the inflationary bias will not be continuous. It will be intermittent. It would be folly to suppose that a long-run possibility will always dominate a short-run outlook.

* * *

1815

1815 and 1816 mania for bank shares.

January 2 . . . "The depreciation of the notes of all the banks in any place is, as far as I can learn, general, uniform and equal." (Gouge)

February 17 . . . War with Great Britain formally ends. Treaty signed December 24, 1814.

1816

Madison signed Bank Bill April (incorporating the second Bank of the United States for twenty years).

Active speculation in bank stocks: "The most active speculators were those whose means were small."

Aspects of Public Revenue Construction Bond Analysis

MARSHALL H. WOOD

THE TECHNIQUE OF ANALYSIS of public revenue bonds issued for primary construction has not yet been broadly developed, and there are relatively few specialists in the field. In fact, it is a complex field in itself, and in certain of its ramifications there are important problems that remain to be solved. The absence of specialists is understandable when it is recognized that, although there are probably some $150 billion of corporate securities outstanding, there are only about $18 billion of public securities (excluding United States Government bonds) of all types, and of these between $2 and $3 billion are revenue bonds. Moreover about one half of the latter are accounted for by a few large issuers.

OBLIGATIONS OF GOVERNMENTAL BODIES

Public revenue bonds can be defined broadly and briefly as obligations of governmental bodies payable primarily from revenues to be derived from charges made for the use of some facility or service, without recourse to taxing power. From the standpoint of the investor a few types of revenue bonds rather closely approach general obligation bonds, as, for example, certain sewer revenue bonds when connection is compulsory and sewer charges constitute a lien on the property served.

FIRST APPEARED IN 1890'S

Public revenue bonds first appeared on the market in the United States in the early 1890's. However, this method of financing public improvements made little important headway until the RFC was authorized in 1932 to lend $15 billion for the financing of self-liquidating projects to be owned and operated by public bodies.*

SUCCESSFUL IF PROPERLY LAUNCHED

Public revenue projects launched under proper conditions and competently operated have been successful from the standpoint of the general taxpayer, the user of the service offered, and the investor who purchased the bonds. Moreover once a well conceived project has become established and has shown favorable operating results, its popularity as an investment has shown a marked increase.

The first bridge to be financed by an issue of municipal revenue bonds secured by a modern trust indenture was the Louisville Municipal Bridge, for the construction of which $5,500,000 bridge revenue bonds of the City of Louisville were issued in 1928. This bridge was opened to traffic on October 31, 1929. Exactly seventeen years and one day later, November 1, 1946, the bridge was presented to the Commonwealth of Kentucky as a free bridge with its entire debt having been retired.†

However, it is important to recognize the fact that a large proportion of existing public revenue projects were initially financed by the RFC, and, for the most part, the bonds did not reach the investing public until the undertakings were going concerns and their investment position had been established to some degree. In addition, many received substantial Federal grants which materially strengthened the position of publicly held bonds.

AMOUNT OF BONDS OUTSTANDING MAY DOUBLE

There are indications that the amount of revenue bonds outstanding may be at least doubled over the next few years. Out of a total of $4,851 million new securities offered in the first six months of 1949 (excluding U. S. Governments) $1,411 million were state and municipal, and of these some $300 million were revenue bonds. The major portion of future revenue bond issues, like those in the recent past, presumably will be issued without the benefit of Federal aid and will be offered to the public before completion of the projects. Moreover, construction probably will be done at a high cost level and at a time of high consumer purchasing power, in contrast with the earlier issues. This would indicate that such issues may be far more vulnerable under adverse conditions and points out the necessity for closer scrutiny than heretofore.

Proper preparation of a public revenue bond for the market is a highly technical operation requiring legal, engineering, and financial talent not only thoroughly skilled in the revenue bond field as such, but also conversant with the diverse factors applicable to the particular type of project involved.

RULE OF THUMB GUIDES

It is possible to use certain rule of thumb guides in the analysis of established operating public revenue projects, roughly comparable to those used in the analysis of some types of corporate securities. In respect to construction projects, however, such an approach is inadequate. Although some investors may take the position that they will not purchase construction revenue bonds, the security analyst cannot evade his responsibility, since such bonds are as amenable to analysis as other securities as long as the analyst is given the requisite data. For the purpose of this study, construction revenue bonds are regarded as including not only bonds issued for initial construction of a new undertaking but also projects in which major extensions or improvements are to be made.

FOUR BROAD CATEGORIES

For convenience only, the aspects of analysis of construction revenue bonds are broken down herein into four broad categories: that is, legal, political, engineering, and financial. This division is arbitrary, necessarily the different phases overlap, and any exact order cannot be adhered to strictly.

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*Revenue Bond Financing by Political Subdivisors, U. S. Government Printing Office, 1936.

†"Some Highlights on Revenue Bond Financing," by Robie L. Mitchell, address, March 30, 1949.

LEGAL

Fundamentally, the security of a public revenue bond depends on the state legislative act under which the bonds are issued. From that viewpoint there is a marked difference between bonds issued under well-thought-out legislation and bonds issued under an inadequate and poorly drawn legislative act, even though under the latter the bonds meet the technical requirements as to legality. Accordingly it behooves the analyst to study carefully the basic legislation under which bonds are issued and to be sufficiently conversant with legislation of this character so that he can make proper distinctions. Although it is not the function of the security analyst to express an opinion as to whether or not a given issue is "legal," it is within his province to decide whether all necessary powers are given to the issuing body and adequate protection is available for bondholders. The latitude given the issuing body in carrying out its objectives and the extent to which legal protection is required will vary with the type of undertaking.‡

Revenue bond legislation normally provides that bonds may be secured by a trust indenture, ordinance, or resolution, as the case may be, incorporating features permitted by the legislation. At their best, these instruments, like the legislation itself, are drawn up to include all the desirable protective provisions that are available, and they are skillfully designed to provide for all possible contingencies. Contrariwise, they may be merely routine documents sufficient to meet minimum tests of legality. Here also the analyst cannot pass upon their adequacy from the standpoint of legality, but he can decide whether they conform to the desired standards.

MOST ESSENTIAL PROVISIONS

From the viewpoint of the analyst the most essential provisions include: (1) full powers and covenant to undertake promptly the necessary construction (usually including power of eminent domain); (2) the protection and proper use of the proceeds of the bonds (the mechanism through which this is usually accomplished is by the appointment of a qualified trustee or fiscal agent to handle all major disbursements); (3) reasonable protective provisions surrounding the issuance of additional bonds; (4) enforceable covenants to charge and collect adequate rates and workable provisions governing the adjustment of rates; (5) covenants as to reasonable operating expenses (often controlled by opportunity for public hearings on budgets and advice of consulting engineers); (6) strict provisions as to the flow of funds, maintenance of reserves, and retirement of bonds; (7) covenants prohibiting sale or encumbrance of property; (8) specific remedies available to bondholders and protection against acts by individual bondholders detrimental to the undertaking as a whole; (9) miscellaneous provisions relative to such matters as insurance, audits, reports, and employment of engineers.

In certain states, and for certain types of projects, mortgages are required or may be desired. Generally speaking, however, a mortgage on a public facility offers little, if any, protection not available under a well prepared trust indenture. A mortgage can, on the other hand, be a source of weakness particularly if foreclosure is the principal remedy available, since bondholders could scarcely expect to operate a project successfully under such conditions.

POLITICAL

Both the strength and weakness of public revenue projects lies in their relationship to political bodies. Public projects financed by revenue bonds usually have monopoly characteristics. Monopoly, combined with adequate flexibility of rate structure and service requirements, plus tax exemption, is a powerful combination which in itself lends great strength to public revenue bonds.

PREFERRED TYPE OF MANAGEMENT

Where possible an independent appointed public authority is the preferred type of management since it is the most business-like method of operating a public-revenue-producing enterprise. When the authority method is used, it is usually provided that the membership of an authority must be divided between political parties. As further protection, the terms of office of members are staggered, thus insuring stability in the face of a sudden sweeping partisan change in government.

NONPARTISAN CHARACTER MAINTAINED

Experience has shown that generally the nonpartisan character of independent authorities has been maintained, notable examples being the Port of New York Authority and the City of Los Angeles Department of Water and Power. To generalize, one is justified in stating that, the larger the undertaking or the more complex it is, the more important an independent body becomes.

ENGINEERING

Construction. The engineering reports on the accuracy and adequacy of which a public revenue construction bond so vitally depends take on an importance far beyond that of similar reports in other fields. On the whole, the security analyst cannot quarrel with the conclusions arrived at by engineering mathematics. The premises on which the engineers' conclusions are based are, however, open to the closest scrutiny. Thus, although preliminary engineering reports are a useful guide, it behooves the analyst to discover to what extent they are "preliminary." On the basis of any given price level and with final quantities of materials known, the fact can be accepted that competent engineers have not made any significant error. It is essential, however, that the design on the basis of which estimates are made for a given project be final and not subject to appreciable change. The time element must, furthermore, be reasonably well established. If firm bids have already been received for all construction work before financing, the risk is greatly minimized. If the latter is not the case, the following questions can be raised: (1) Have cost estimates been made by independent engineers known to be well qualified in the particular field? (2) Are estimates actually based on final plans (except for minor details)? (3) If approval of plans by an outside governmental body must be obtained, is evidence that this has been done at hand? (4) Can construction be retarded contingent on action by outside bodies—particularly is the completion or full operation of the project contingent on other construction? (5) What length of time is required before all contracts are let? (6) Is there adequate provision in cost estimates both for change in the price level and for possible contingencies inherent in the particular type of construction? (7) If, in addition to construction, extensive land acquisition is required, have competent and complete appraisals been made?

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‡Compare Mystic River Bridge Authority Act (Ch. 562, 1946 as amended) with Wisconsin Ch. 315, 1945.

Engineering reports will vary widely depending on the types of undertaking. No report may perhaps be ideal, and reasonable allowance must be made for particular local circumstances. The completeness required in a given instance will further depend on the magnitude and complexity of the particular undertaking. In the case of very small communities engaged in construction that is relatively simple, local engineers frequently may be relied upon.

Revenue Forecasts. Forecasting the revenue that will be obtained from a new public enterprise by engineers specializing in the particular field has proven to be conservative.§ Conclusions drawn therefrom, however, must be qualified by knowledge of the assumptions on which the forecast rests. Thus, for example, traffic engineers can tell within a small margin of error the number of motor vehicles that are potential users of a new facility as of a given date. However, actual use of the facility by the full potential may require that the new facility be adequately publicized. Particularly to be noted is whether the results projected by the engineers depend on action to be taken by outside bodies. Thus, to use a bridge by way of illustration, the traffic engineers may have been told to assume that approaches or connecting highways will be constructed by others and made available when the bridge is opened.

For a new water or sewer system, it is not necessarily sufficient that the law requires property owners to make connections, but it may be necessary for officials actually to see that connections are made if the estimated revenue is to be realized promptly. In general, the security analyst is justified in accepting the conclusions of engineers in respect to the potential revenue, when the basic premises are acceptable. When engineers project revenue over a long period of years, the basis for the projection is (or should be) given. Such projections ordinarily show an initial "normal" year and the subsequent growth, estimates not actually being made for any particular calendar years. This variable factor for particular years is compensated for in a sound financial setup by providing for the establishment of reserves (This phase is covered under Financial).

WILL THE TREND FOLLOW THE CURVE?

The economist has a right to question whether the trend will, in fact, be the same as the curve projected. On the other hand, when a critical view is taken, the factor of induction which pertains to most new public revenue enterprises should not be overlooked although it cannot be scientifically measured.

Thus, even if the population of a given area remains static a new bridge serving the area usually will generate traffic not previously existing.** New and attractive facilities will also draw new people to the area. Unless it can be measured, engineers usually make no allowance for the factor of induction, and this frequently tends to make their estimates on the conservative side.

Annual expenses must likewise be estimated by the engineers as well as the amounts that should be periodically set aside for replacements and extraordinary repairs. This phase is of major importance only for public facilities with high operating ratios.

FINANCIAL

The terms of revenue bonds in respect to interest rate, maturity schedule, redemption features, and the like, are usually (and properly) left to the judgment of financial advisers, within the limits of the legislation.

Ordinarily, construction revenue bonds are issued as term bonds rather than in serial form. The maturity is "tailored" to the projected revenues and preferably is fixed several years beyond the point where the bonds should be paid off in full. Thus protection is offered against both construction costs being greater than estimated and net revenues being below estimates. At the same time, it is usually required that bonds be retired in accordance with a fixed minimum schedule.

PAYMENT OF INTEREST

Provision is ordinarily made for payment of interest not only during the construction period but also for a given period thereafter, usually one year, to enable the new enterprise to develop normal earning power.

The financial advisers also usually recommend that provision be made for the establishment of a debt service reserve, in addition to such operating and maintenance reserves as are recommended by the consulting engineers.

MAINTENANCE AND ADJUSTMENT OF RATES

Provisions concerning the maintenance and adjustment of rates are also within the province of the financial advisers—subject to legislative restrictions, if any. Where feasible, the best modern practice is to require the issuing body to call upon its consulting engineers for studies and reports if and when necessary, and the issuing body covenants to act on the recommendations of its engineers. This type of protective provision in respect to rates that will be charged seems eminently satisfactory. Thus, much of the onus of increasing rates is taken off the political body, and at the same time the danger is eliminated of having rates raised to the point of diminishing returns which would benefit none.

Generally, construction revenue bonds are sold on a negotiated basis at private sale. This is desirable both to promote a successful sale by the issuer and for the protection of the investor.[††] Each project presents its own particular problems which must be solved by the co-operative effort of the issuing body, attorneys, engineers, and bankers. Furthermore, private sale places a definite continuing responsibility on all those involved to see that the undertaking is followed through to a successful consummation, and this may be of paramount importance. The best set-up issues, moreover, provide that a change in consulting engineer and trustee may be made only after it is approved by the original purchasers of the bonds. Also provision is usually made that periodic reports must be filed with the original purchasers so that there can be no question of their being in a position to follow developments.

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§In 1937 estimated revenue of Bronx-Whitestone Bridge for 1939 was $3,650,000 compared with actual of $4,170,030.

**Vehicles crossing the Delaware River within 10 miles of the proposed Delaware River Bridge totaled 5,399,641 in 1925. The bridge was opened in 1926, and total crossings were 7,710,121, of which 4,137,674 were on the new bridge and 3,572,447 on the ferries. After opening of the Tacony Palmyra Bridge, ferries lost less than 300,000 vehicles, and 1,374,285 used the new bridge in 1930. At the same time the Delaware River Bridge gained over 600,000.

CONCLUSION

It may be observed that, in preparing a public revenue construction bond for the market, the functions of attorneys, independent consulting engineers, trustee, and financial advisers are knitted together, and the responsibility for the fundamental soundness of a revenue bond project falls heavily upon them. This does not absolve the issuing body from its own responsibilities. However, a public body must follow the law as precisely as it can. Whenever there is room for a conflict between what might be deemed to be in the public interest and in the interest of the bondholder, the latter must, for his own protection, assume that the public body will decide against him if the course of action has not been "spelled out" in detail. Accordingly, having the basic legal documents, including the legislation itself, prepared by attorneys having the interest of bondholders in mind is of fundamental importance. Likewise the independence, integrity, and ability of the engineers and bankers must be beyond question.

It is of course possible for a public revenue bond to have its interest and principal requirements met promptly as due without all these factors being favorable. Most public bodies do not default on their obligations except under conditions of extreme urgency.

This brief study is not intended as a definitive thesis. However, experience seems to indicate that there is a tendency to approach the analysis of construction revenue bonds on a statistical basis rather than by broad but thorough analysis as outlined herein.

[††] See "Legal Requirements of Revenue Bonds," David M. Wood of Wood, King and Dawson, New York, *The Daily Bond Buyer,* May 28, 1947.

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1817

Rapid advance in process. Flour $9 a barrel . . . scarcity of grain.

Forty new banks incorporated in Kentucky—many of them failed.

Beginning of canal building.

Speculation in canal shares, slaves, and bank shares.

March 3 . . . President Madison vetoed a bill to use the dividends and bonuses paid the National Government by the Bank of the U. S. "for constructing roads and canals."

March 17 . . . (Niles) "Praise to Almighty God, in blessing this people with such abundant crops of wheat, rye, oats, flax; notwithstanding the uncommon cold and severe drought, they were never greater."

May . . . 1000 shares of stock of the Bank of the U. S. were purchased for its president, William Jones.

June 28 . . . "Specie flows in abundantly."

(Niles) "Banks are so numerous and so easily made at present, that they are hard pressed to get names for them."

September 6 . . . "It is an undoubted fact that crops of grain, grass, and other vegetables, for the use of man and beast, have been, and promise to be, exceedingly abundant in almost every part of the United States, the present year."

August 16 . . . "Specie is pouring in from all quarters."

September . . . "There has been a great rise in the stock of the Bank of the United States."

November . . . "Tennessee imposed a tax of $50,000 upon any bank located in the state not holding a state charter."

December . . . Georgia passed a law imposing a tax of "thirty and a fourth cents on every hundred dollars of bank stock operated within the state."

December 2 . . . President Madison's message affirmed that "Congess had no right to authorize the building of public roads."

December 27 . . . "The President in his late message on account of the financial prosperity in the United States recommends the abolition of internal taxes. . . . Messages from the governors of several states evince the same financial prosperity. Money matters is hardly mentioned in any of them, except to tell the representatives of the people that there is an abundance . . . and to recommend of it freely to objects of public utility: roads, bridges, and canals and seminaries."

Whisky—an Industry Developing Stability and Investment Status

OSCAR M. MILLER

THE WHISKY INDUSTRY, like the public utilities and the railroads, is closely regulated, and as a result a sufficiently large body of statistical data is available to provide an analyst's paradise. However, unlike the public utilities, the whisky business is highly competitive, so that it carries in combination some of the major elements of both regulated and free enterprise. And, unlike any other business, the marketing of whisky is, by specific Constitutional authority, a matter for state control. Thus, special retail price control legislation may be enacted as it has been in a number of states, and retail distribution may be monopolized by state stores as it has been in 17 states. The organization of the whisky industry, therefore, is unique in a number of points, and there are some elements of price control in whisky that do not exist in any other competitive industry.

BARELY SEVENTEEN YEARS OLD

The modern whisky industry is barely seventeen years old, but it has already passed through three distinct stages of development, and it is now well along in the fourth stage in which the basic patterns are well set and long-range prediction is reasonably effective.

The "new industry stage" in whisky lasted from repeal in 1933 until about the middle of 1937, and a profitable time was had by all. Ownership of inventory was the dominant factor of this early period. With the establishment of adequate stocks throughout the industry, the business entered the second stage, in which, as a result of an intensive battle for markets, the weaklings were weeded out or absorbed by others. The present pattern of the industry was being created in this period of near chaos, but the war, with its restrictions, once again made ownership of inventory the dominant factor. The third period—during World War II—was similar in many respects to the initial postrepeal stage, but it was marked by some important contrasts. The continuation of the trend toward concentration in the industry was perhaps outstanding, but it was also significant that the era came to an end by rather easy stages instead of abruptly as in 1937. As a result the free market forces came back into play by steps, over an extended period of time, and the industry gradually became highly competitive once again. A stage of normal balance, in relation to the economy as a whole, is now being approached, but this time it is being reached without the industry's passing through a period of chaos.

PRESENT ERA ONE OF NORMAL DEVELOPMENT

The beginning of the fourth stage of the whisky industry coincided in part with the postwar industrial reconversion period, but the present era is one of normal development for a new industry rather than a reversion to a previously established norm. Statistics on consumption of whisky since 1946 show a declining trend which has sometimes been pointed to with alarm. Actually the unusually high level of 1946 included, as indicated consumption, a substantial gallonage that went into the restocking of the distribution channels. Declines in consumption since 1947, however, have been real, though not large, and for the most part they reflect a return to normal levels in bar and restaurant sales. It is particularly significant that some of the major companies showed increases in sales during this period and that the "Big Four" as a whole showed only a small decline. The major portion of the drop from the all-time peak of 1946 was absorbed by companies whose brand names were relatively unknown, and a number of these companies disappeared.

Total indicated consumption of whisky in 1949 amounted to about 132 million proof gallons, which compares with 147 million gallons in 1947 and 115 million in 1940. At the peak in 1946 the indicated consumption was 166 million gallons, but this figure has little analytical significance.

LONG-RANGE FACTORS—THE RISE OF THE "BIG FOUR"

The emergence of the "Big Four" as the acknowledged leaders in the industry, and the subsequent rise in their relative position constituted one of the most important long-range factors in the development of the whisky business. The four leading companies taken together accounted for over 70%, and last year the "Big Four" sold about 80% of the case goods of the United States.

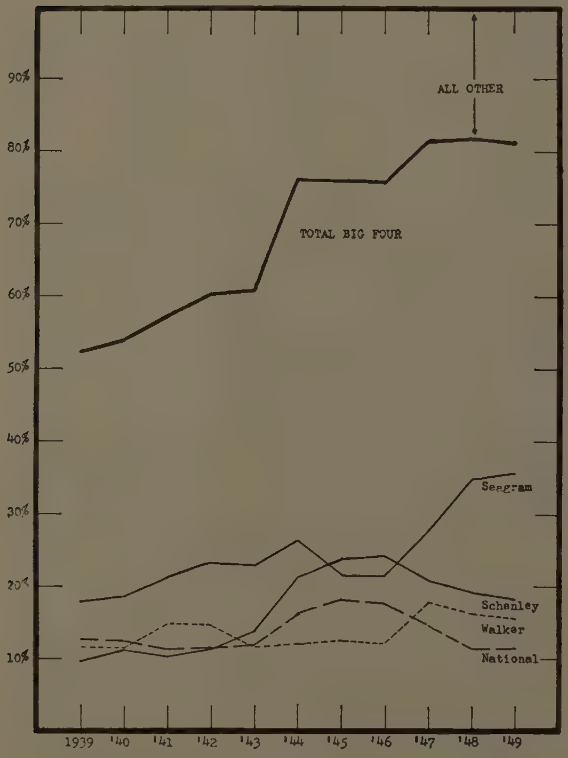
Although the growth of the "Big Four" has been steady, the trends within the "Big Four" have shown very interesting and, from an investment point of view, very important changes. National was the dominant factor in the industry immediately after repeal because of its relatively larger inventories of aged whisky and its ownership of prerepeal brand names. Schenley later took first place, but by 1938 it was superseded by Distillers Corporation—Seagram's. The restrictions of the war period, which again emphasized ownership of inventory, took a heavy toll from Seagram as well as Walker, because neither of these companies had marketed straight whiskies which provided the base for inventory "stretching," and as a result Schenley recovered its first-place position. After the war, however, inventory ownership was no longer the controlling factor, and, coincident with the rise of merchandising as the dominant force, Seagram once again rose to first place, this time by a wider margin, and Walker made a substantial recovery. All through this development period the position of the minor companies continued to decline.

The accompanying chart which shows a percentage analysis of retail sales in the 17 monopoly states, for the period

1939 through 1949, clearly indicates the long-term trend toward concentration within the "Big Four," and it also shows the even more significant trends of sales of the major companies in these states.

RISE IN SPIRIT BLENDS

The second significant long-range factor in the industry was the growth of spirit blends at the expense of bonded and straight whiskies. Blends rose almost steadily from 18% of the total in 1934 to 37% in 1937, 43% in 1941, and 88% during the war when the necessity of stretching out supplies of aged whisky added a powerful stimulant to the established trend. The original development of the market for blends, which was a distinct policy of some of the major companies, was based on Canadian and Scotch practices, and it not only fitted the necessities of the period immediately following repeal, but it also provided a basis for the development of nationally promoted brands through the elimination of the sectionalism of bourbons and ryes. Although spirit blends did not take more than half the whisky market until after our entry into World War II, the development was fortuitous for the industry because it created the basis for meeting the wartime stoppage of distillation. In addition, the expansion in the market for blends greatly reduced the financial needs of the industry, which with present excise taxes and high grain costs would have been very large and would have created for the whisky industry some of the financial problems afflicting the cigarette business.



The monopoly states, which are the only ones that provide retail sales data, account for about 30% of the national consumption. The "Big Four" position in the Nation is somewhat smaller than in these 17 states, but the trends have been similar. Seagram's position in the country is also somewhat smaller, and Walker's proportion is considerably smaller. National's position is substantially larger, and Schenley's position in the country is somewhat larger than indicated, especialy in the earlier years.

AGED WHISKY STOCKS INCREASED SHARPLY

During the past twelve months the stocks of fully aged whisky increased sharply and made a resurgence in bonded and straight whiskies possible. It has been estimated in some quarters that bonds and straights might recover to perhaps 30% to 35% of the total market and that the distribution balance of recent years might be in danger. Some decline in the large proportion of the market taken by blends was to be expected, and bottling statistics show that bonds and straights rose to a peak of 27.7% last December. However, these figures were influenced by the basic requirements for the distribution channels, and there has been a steady decline since the turn of the year. In April the bottling of bonds and straights dropped to 22.7%, indicating that the position of such whiskies had not yet become important. The present pattern in consuming habits, which started to develop shortly after repeal and was accelerated by the war, appears to have been well established, and it is not likely to be seriously changed unless bonds and straights are sharply reduced in price and heavily promoted in order to change taste habits.

UPGRADING IN DEMAND

A third factor of prime importance to the whisky industry, because of the substantially wider margins obtainable in the higher price categories, is the continuing trend in upgrading of consumer buying habits. Data on consumption in the 17 monopoly states show that in 1940 approximately 70% of the whisky consumed was in the lowest price category—the class C range; about 20% was in class B, the second lowest price group, 4% was in the class A range and the remaining 6% was in the premium category. By 1942 the class C proportion was cut in half while class B rose to 39% and class A volume rose to 17%. Three years later class C was under 5%, class B rose further to 50% of the market, and class A approached 40%. In the first year after the war class B declined to 45% while class A rose to 44%. The decline in class B continued down to 39% of the market last year while class A rose further to 47% and the premium class rose to 13%. The upgrading during the war was to be expected in view of the short supplies of aged whisky and the sellers' market which existed at that time. However, the upgrading in the postwar years, which has continued into 1950, is not so easily explained, particularly in view of the rises in the general level of living costs. It may well be that the upgrading reflects the effectiveness of advertising and the establishment of brand consciousness.

BRAND ACCEPTANCE

The rise of brand acceptance seems very likely to be marked as the outstanding feature of the fourth stage of the whisky industry, and this rise may well be the root cause of the three long-term trends discussed above. In any event, brand acceptance is a factor that bids fair to add an important measure of stability to the industry. Of course, a large number of whisky brands continue to be sold in this country, but the trend toward concentration of demand on a few leading brands has been growing apace. The ten leading brands in the 17 monopoly states accounted for approximately 60% of whisky sales last year, compared with 28% a decade ago. Seven Crown (Seagram) has become the leading brand by a wide margin, and it alone accounted for nearly one sixth of the total whisky market of the country. The current relative position of 7 Crown exceeds that of the combined positions of the four leading brands of ten years ago and 7 Crown's position in the whisky industry approaches that of the leading brands in the cigarette business. The second and third whisky brands, Schenley Reserve (Schenley) and Calvert Reserve (Seagram) also, significantly, are class A blends, and each now is more important than the largest brand of ten years ago. The next most important brands include Walker's Corby Reserve, Walker's Imperial, and National's PM Deluxe. These are class B whiskies, but in general their positions have been well maintained even though the class B group, as a whole has declined.

The statistics clearly indicate the growing concentration of demand upon widely advertised brands, and the conclusion would seem to follow that this trend alone should add considerable stability to the industry. Taken in conjunction with the unusual characteristics of the monopoly state markets and the pricing legislation of many other states, a strong measure of marketing stability is suggested.

NEAR-TERM CONSIDERATIONS

Usually the trends in cost factors and the accounting characteristics of the leading companies in an industry are sufficiently similar that the differences can often be ignored in the analysis of the securities. In the case of the leading whisky companies, however, the differences are important and an understanding of them is necessary in order to make sound appraisals.

BULK WHISKY PRICES

The principal difference in costs in recent years arose out of the fact that the grain allocations of the early postwar years were based on historical considerations and were not consistent with the present aged whisky needs of the various companies. As a consequence, many distillers had excess supplies of aging whisky that could be sold in bulk at unusually profitable prices. Small distillers who never had a case goods market enjoyed an extended period of high earnings because of the scarcity prices that prevailed for their inventories. Publicker probably made the largest sales of bulk whisky, and some of the smaller bottlers went to the limit by selling their entire inventory and going out of business. Schenley also made substantial bulk sales, and National, which customarily makes bulk sales of certain types of whisky, also enjoyed an extraordinary lift in its earnings because of the scarcity prices. Seagram, which had a sharp rise in the demand for its case goods, is the outstanding example of a company that was squeezed by high prices for bulk whisky. The bulk market has not entirely returned to normal, but the aged inventory situation is approaching a comfortable position for all major companies, and prices are off sharply from the peak. The heyday for bulk sellers, however, is rapidly coming to a close, and the cost factor for buyers is improving.

INVENTORY ACCOUNTING

The differences in accounting practices—mostly inventory accounting—tend to create distortions in the comparisons of income accounts, and the aging period for whisky coupled with the wartime stoppage of distillation magnifies the problem. Schenley and Walker use the specified unit cost method of inventory accounting, which in many respects is similar to first-in first out, and in recent years a considerable part of their bottling costs were based on prewar values. National changed to LIFO accounting in 1946, and the costs charged into its operations in recent years have been largely at the current level. Seagram has used LIFO accounting since 1942 so that its operations were on a current cost basis throughout the period of rising prices. This company's basic inventory of about $118 million is priced largely at prewar values, but in view of the expansion of the business this part of the inventory is likely to be frozen into the balance sheet permanently. The accounting differences as they affect the income accounts of the various companies are now becoming fairly well equalized, and for the future the principal difference will lie in the balance sheet valuations.

CASE GOODS PRICES

Pricing policies will be an important near-term consideration in the trend of earnings of the individual companies because the impact will not be uniform. Producers of bonded whiskies, for example, have enjoyed wide profit margins, particularly since the sharp price advances made late in 1946. However, the recent price reductions on bonds which followed upon the increase in supplies of four-year-old whisky have cut these margins, and unless the volume in bonds rises substantially the earnings in this phase of the business will be considerably lower. Other whiskies, particularly straights, have been cut in price in an attempt to broaden the market for these products. The well-established, nationally advertised blends, on the other hand, have been priced on an unchanged net-to-the distillery basis for a long period of years, and there are no indications of change in the pricing policy on these lines.

ATTITUDE OF CONSUMING PUBLIC

The most important over-all consideration in whisky pricing and in profit margins is the attitude of the consuming public. The continued upgrading in consumer demand suggests that the present price structure is sound. However, if the trend should be reversed to an important degree the profit margins for the industry as a whole would decline, and if the demands of the public were to shift strongly to lower-price lines there might be price reductions even in the well-known blends.

NEAR-TERM OUTLOOK

If broad-scale warfare should develop the whisky industry probably would be forced once again to live on its inventories for the "duration." However, war now would not result in the sharp dislocations experienced in World War II. Total inventories of whisky are now close to 25% above the June 30, 1942, peak, and the distillation of whisky and spirits—especially the latter—is likely to proceed at a high rate in order to alleviate an emergency that might arise. If the emergency should materialize soon, young whiskies, of course, could be further distilled into the neutral spirits necessary for blending. Data on ownership of inventories are meager, but there is little doubt that the stocks in warehouse are more nearly in line with the current level of requirements of individual companies than they were eight years ago. All the leading companies, therefore, could be expected to maintain relatively comparable positions in relation to their markets. Demand for case goods probably would rise rather sharply, and it is probable that profit margins would also expand. The level of income taxes, of course, would be a dominant factor in estimates of wartime earnings.

Under current conditions the volume of sales of case goods appears to have reached a stabilized level, but, nevertheless, the earnings of the major companies are likely to follow divergent trends over the near term. Those who have been sellers of bulk whisky will be adversely affected by reduced prices as well as by lower total demand; buyers of bulk, on the other hand, will benefit. Profit margins to bottlers of bonded and straight whiskies will be lower, but the impact on their over-all earnings will depend on their ability to increase volume. The problem for the bottlers of blends lies in the impact that bonds and straights can make on their market. The factor of safety for the bottlers of the well-known blends lies in the probability that the unknown brands will absorb most of the impact, just as the poorly established distillers absorbed most of the decline in total whisky sales from the abnormal peak of 1946. Accelerated competition will place a premium on effective promotion, and the trends in brand sales are the important factor to observe.

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Report of Thirteenth Annual Meeting

NEW YORK SOCIETY OF SECURITY ANALYSTS

May 25, 1950

Report of the President

THE NUMBER 13 is said to be unlucky. But this hardly characterizes the 13th year of our Society, during which it has been my great privilege to have been President. In that period further progress has been made in several directions.

Membership has attained a new high, approaching 1,400, despite screening of new applicants under the new, more stringent admission rules by a hard working committee headed by Joe Stout.

The continued high caliber of our forum meetings is a tribute to the outstanding ability and ceaseless efforts given to this important activity by Jerry Jenks, valiantly assisted by such able leaders as Arthur Jansen, Johnny Childs, Walter Gutman, Sid Lurie, Sturgis Macomber, and Lanc Greene.

Special thanks are due to another loyal, tireless group working largely behind the scenes and responsible for the advances made by that valuable Society project, the ANALYSTS JOURNAL, which has become a truly helpful professional publication. This team, headed by Pierre Bretey, comprised such indispensable individuals as Helen Slade, Lucien Hooper, and Johnny Kalb. We should all be proud of their fine work, especially in connection wtih the fourth quarter, 1949, "Industry Issue," containing thirteen articles of various industries and their securities by as many different analysts. The complete report of the PROCEEDINGS of the third annual convention of the National Federation in the second quarter issue of 1950 represented another triumph for the JOURNAL staff.

For the third year, we were the host society at the annual convention of the National Federation (which now embraces nine member societies), held for the first time at a leading hotel. This convention was certainly the best attended and, in other respects, the most successful, attesting to the enhanced status, wide esteem, and fuller recognition of financial analysts and their work. Credit for the success of this affair must be shared by a host of individuals affiliated with the various constituent societies, who gave unstintingly of their time and talents.

Two jobs that require much faithful work and are vitally necessary are those of secretary and treasurer. These positions have been capably handled over the past year by Ted Locke and Nat Bowen, respectively, to whom all thanks are hereby extended. We were also fortunate in having D'Arcy Parrott serve his second successive year in the difficult and often thankless task of employment committee chairman. Harold Gartley, chairman of the house committee, also merits our sincere thanks.

It has been a rare privilege, as well as a delightful experience, to have been President of this Society during the past year. All the work has been done by others while all the fun has been done by me—on the banquet circuit "King for a Day," if you please. To my successor and the incoming administration, I offer my best wishes and hopes for success. I have every confidence in their ability to carry on the task of lifting our Society to a more dominant position.

JOSEPH M. GALANIS

Publications Committee

During the year, the JOURNAL did not publish a special brochure comparable to that of *Risk Capital and the American Investor*, published in 1949. Instead an Industry Issue (Vol. 5, No. 4), with articles written by various specialists in their respective fields, was published. This issue received favorable comments, and the JOURNAL and its staff wishes to thank each author individually for his real contribution.

During the past year the editors have been criticized somewhat in not maintaining a proper balance of material and subject matter. Some readers believe articles of a technical character were overemphasized. Accordingly fewer articles dealing with analytical techniques were accepted. However, should members possessing worth while ideas on these subjects submit articles to the editors, we will gladly accept them to restore a better balance between the two types of articles.

The staff of the JOURNAL wishes to thank John Kalb for his faithful services rendered as business manager for the past several years. He has applied himself diligently in the difficult task involved and has co-operated to the fullest extent with his successor, Mr. Kahlman Linker.

The staff also wishes to thank Helen Slade for her efforts made on behalf of the JOURNAL during the past year. As has been her custom, she has continued to write the book reviews, which are of high quality, and she has given freely of her time. Without her efforts, the Society would have difficulty in turning out a JOURNAL of its present quality.

In our report of the previous year we stated that the JOURNAL took a momentous step in changing its format and contracting with an advertising specialist to increase the amount of corporate advertising in our publication. Results have been gratifying and are detailed in the report of our business manager, indicating profit of some $2,200, first profit in the JOURNAL'S history.

To increase compensation to authors, an advertising committee has been appointed to co-operate with our advertising representative, Mr. Grant Webb, so that advertising revenues of the JOURNAL may be increased Should results of this campaign prove fruitful, the editors are hopeful of being able to increase compensation to authors for all articles submitted to the end that those submitted may not only be more numerous, but of consistently higher quality. This aim is almost necessitous now that the number of sister societies is growing and the JOURNAL is having a wider distribution, not only in the United States, but in Canada as well.

For the third successive year the PROCEEDINGS of The National Federation have been published. The 1950 PROCEEDINGS were by far the most ambitious task ever attempted by the editors. They included all the addresses of speakers at the luncheon, dinner, and miscellaneous forums. Somewhat wider distribution than that of the previous year was attained.

Our editorial board has been enlarged and has functioned smoothly during the year. PIERRE R. BRETEY

Standards Committee

The standards committee has endeavored to function with reasonable activity during the past year. With the approval of the executive committee, a special committee was formed under the chairmanship of Marvin Chandler to write a letter to Senator Frear indicating approval of Senate Resolution 2408, amending the Securities Exchange Act, to bring under the registration requirements of this Act those companies whose securities are not registered on any stock exchange but whose assets exceed $3 million and whose securities are held by 300 or more persons.

Mr. Chandler was also authorized to appear as a representative of the Society before the Senate Committee at hearings on the bill to make a statement on behalf of the executive committee of the Society supporting the full disclosure requirements of the bill. A copy of Mr. Chandler's able statement made to the Senate Committee is filed in the Society's records.

Upon numerous occasions the question has arisen as to what steps, if any, should be taken to achieve a professional standing for security analysts. This subject is an important as well as a controversial one and has been discussed many times during the past history of the Society. In the opinion of the standards committee, the idea has substantial merit, and efforts should be made to develop it successfully. A special committee under the chairmanship of Walter Gutman has been appointed to explore the best methods of working towards this end.

During the past winter the standards committee was approached by the Edison Electric Institute for its opinions in connection with revising the so-called Report for Insurance Companies prepared by the electric utility companies. The committee has conferred with numerous public utility analysts and other interested members of the Society and has filed a report with the Edison Electric Institute setting forth its recommendations as to statistical and financial data that it would be desirable to receive from the utilities.

In conclusion we would like to reiterate that the standards committee has a very real and practical role to play in the growth and development of the Society, and it urges that all members be active in submitting constructive suggestions. CHARLES TATHAM, JR., *Chairman*

Program Committee

In the last twelve months the program committee has arranged approximately 150 luncheon meetings. Speakers included leading business executives, members of our own Society, and distinguished guests from various fields.

Credit is due to the forum chairmen, John F. Childs, W. Sturgis Macomber, Sidney B. Lurie, Walter K. Gutman, Lancaster Greene, and Arthur Jansen, for their hard work in arranging and handling these luncheon meetings. Also contributing their effort were many active members of the Society, including Lucien O. Hooper, John W. Spurdle, N. Leonard Jarvis, Joseph M. Galanis, and a number of others too numerous to list.

The high spots of the year are hard to single out but perhaps especially memorable were the Du Pont meeting and a number of others equally successful.

My work as program chairman was simplified by the fine co-operation of the membership, for which thank you all.

J. C. JENKS, *Chairman*

The Analysts Journal

Business results realized by the ANALYSTS JOURNAL for the calendar year 1949 reflected the program adopted to broaden revenues. Gross revenues for the calendar year increased from $7,583.14 in 1948 to $15,388.87 in 1949. Net profits for the period amounted to about $2,200, as against an indicated net loss of $165.66 for the prior year.

In view of the fact that the scope of the operations of the business affairs of the JOURNAL has increased so much, I have resigned, and I want to take this opportunity to say that it was a pleasure to be associated in the efforts of making the JOURNAL a publication of national scope and

REVENUES

	Applicable to Vol. 4, Full Year 1948	*Applicable to Vol. 5, Full Year* 1949
N. Y. Society appropriation	$1,500.00	$ 3,200.00
Other analysts groups	320.00	1,129.50
Public subscriptions—new		689.50
renewals	1,767.00	1,466.50
Individual copy sales	50.00	397.05
Advertising revenues	400.00	7,207.27
Reprints	431.09	136.50
Indicated gross revenues	$4,468.09	$14,226.32

COSTS

	Applicable to Vol. 4, Full Year 1948	*Applicable to Vol. 5, Full Year* 1949
Editorial production costs	$3,558.27	$ 6,308.52
Distribution costs	374.50	762.11
Advertising expenses	....	3,656.67
Publicity	....	214.16
Selling expenses	318.70	400.92
General and administration costs	73.85	517.09
Refunds	24.00	62.75
Reprints	284.23	92.82
Total direct costs	$4,633.55	$12,015.04
Indicated Profit or Loss	d$165.46	$ 2,211.28

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS OF ACTIVITIES OTHER THAN THE ANALYSTS JOURNAL FOR THE YEAR ENDED MAY 31, 1950, AND 1949

	Year May 31, 1950			*Year May 31, 1949*		
Balance beginning of year—Chase National Bank			$ 2,473.05			$ 3,342.30
Receipts						
Dues—1,345 @ $8 (includes 1 @ $8 for previous year)		$10,760.00				
Dues—1,251 @ $8 (year May 31, 1949)					$10,008.00	
Badge fees (for new members @ $1—replacements @ $1.65)		136.65			109.00	
Luncheon fees—nonmembers and missing badges		44.61			50.03	
Miscellaneous		8.00			.....	
Sales of copies of National Federation PROCEEDINGS		.....			78.40	
Total receipts			$10,949.26			$10,245.43
Total funds available			$13,422.31			$13,587.73
Disbursements						
Contribution to ANALYSTS JOURNAL (@ $2 per member in 1950 and $2.50 per member in 1949)		$ 2,690.00			$ 3,200.00	
Printing and mailing regular meeting notices	$1,824.94					
Other printing, postage, & stationary	540.03	2,364.97			2,433.41	
Directory of members	$1,596.11			$1,686.42		
Less—pro-rata proportion received from other Societies	566.78			522.62		
Less—sales of directories	27.00	1,002.33		.....	1,163.80	
Furniture & fixtures		212.43			528.60	
Secretarial & bookkeeping services		916.00			516.85	
Travel expense		66.68				
Christmas party—cost in excess of receipts		334.71			{ 362.67	
Luncheon expense speakers		155.70				
Badge expense		236.71			154.05	
National Federation dues		100.00			200.00	
Miscellaneous		144.11			18.39	
Printing 1948 National Federation PROCEEDINGS		.....			34.91	
Audit expense (2 years)		105.00			.....	
Printing & mailing program, etc., of annual meeting of National Federation to NYSSA members		146.81			.....	
Transferred to East River Savings Bank		1,345.00			2,502.00	
Total disbursements			$ 9,820.45			$11,114.68
Balance end of year—Chase National Bank			$ 3,601.86			$ 2,473.05
East River Savings Bank						
Balance beginning of year			$ 2,502.00			.....
Deposits during year			1,345.00			$ 2,502.00
Interest credited			47.78			.....
Balance at end of year			$ 3,894.78			$ 2,502.00
Total Funds in banks			$ 7,496.64			$ 4,975.05

bringing it to a point where it can expand to a much greater extent than heretofore.

JOHN KALB

Employment Committee

Increased activity in the security markets during the past year has been reflected in a distinct improvement in employment conditions. Placements through the Society's employment committee have increased, and the number of experienced analysts seeking new positions is lower than it was a year ago. Also, salaries offered are generally higher.

At present, we have in our files 18 applications from seniors as against 23 a year ago. We have been consulted during the year by about 40 different employers, including stock brokerage firms, banks, insurance companies, investment trusts, and investment advisers. We can definitely trace the placement of ten members of the Society through our efforts as against four in 1948–49. It is probable that a larger number of applicants have obtained positions through filing with us, since in some cases the requirement that the committee chairman should be notified of any change in employment status has not been observed.

In this connection, the committee would like to call to the attention of applicants that resumes are retained in our active file for three months only. At the end of that time they are removed unless we are notified that the member is still interested in our services. It is important that the committee should be notified when a new connection is made, as it is obviously embarrassing to us when we learn indirectly that a member listed with us is no longer available for employment.

It has been the experience of the committee that the member's prospects of obtaining a position are materially improved when full data as to previous experience—including names of employers—salary requirements, and so

Statement of Cash Receipts and Disbursements, The Analysts Journal For the Year Ended May 31, 1950

Receipts			
Subscriptions			
The New York Society of Security Analysts	$2,690.00		
Groups	2,003.50		
Other			
New	576.10		
Renewals	1,688.25	$ 6,957.85	
Sales			
Advertising	$9,063.01		
Individual copies	757.35		
Special studies	155.50		
Reprints	136.50	10,112.36	
Sundry		123.25	
Total receipts			$17,193.46
Disbursements			
Editorial production expense			
Printing	$7,041.08		
Copy editor	1,291.04		
Payments to authors	1,057.82		
Sundry	100.00		
		$9,489.94	
Distribution expense			
Addressing and mailing	$ 198.66		
Postage	315.36		
Envelopes and addressograph plates	61.34	575.36	
General and administrative expense			
Bookkeeping and auditing	$ 335.00		
Clerical and sundry	315.24	650.24	
Selling expense			
Clerical	$ 312.50		
Postage, stationery, and sundry	262.74	575.24	
Advertising expense			
Representative's fees	$2,757.28		
Extra pages and copies and sundry	1,040.40	3,797.68	
Publicity expense			
Extra copies	$ 69.87		
Sundry	162.65	232.52	
Special studies expense		9.95	
Sundry expense		26.83	
Total disbursements			$15,357.76
Excess of receipts over disbursements, to Exhibit A			$ 1,835.70

on, are included in his resume. We are receiving an increasing number of inquiries from out-of-town employers. For this reason, the applicant should state specifically those sections of the country in which he is willing to work. A standard questionnaire is available to applicants on request to the chairman.

The chairman wishes to thank Helen Slade, chairman of the employment committee of the National Federation of Financial Analysts' Societies, who has been particularly helpful in connection with out-of-town positions. Thanks are also due to Ralph Rotnem and Robert Cummin, who have offered many helpful suggestions and informed the chairman of various interesting vacancies. An increasing number of our members are consulting with the committee in connection with their analyst personnel requirements. We are greatly encouraged by this trend and trust that it will continue at an accelerating rate.

D'Arcy Parrott, *Chairman*

Treasurer's Report

Fiscal Year—June 1, 1949—May 31, 1950

The following is a statement of the cash receipts and disbursements for the fiscal year ended May 31, 1950, covering all activities of your Society, other than those for the Analysts Journal.

The excess of receipts over disbursements for the year amounted to $2,473.81. In accordance with a resolution of the executive committee, of every member's dues of $8 last year, $1 was transferred to a special savings account—East River Savings Bank—to be withdrawn only on the approval of the committee for special purposes.

Briefly your $8 in dues was spent as follows:

$2.00—Subscription to Analysts Journal.
0.74—Cost of printing and distributing directory, net.
1.36—Printing and mailing regular meeting notices.
0.68—Secretarial and bookkeeping services.
1.38—All other expenses—net of other income.
1.84—Excess of receipts over disbursements, of which $1 was transferred to the reserve account—East River Savings Bank.

$8.00

Nathan Bowen

Letter to the Editor

Gentlemen:

Mr. Gutman's article in the first quarter issue of the ANALYSTS JOURNAL written for the purpose of discussion is a good start for further thought. We have now in the analysts' classification: (1) market analysts, (2) market letter writers, (3) statisticians, (4) security analysts. Most of these functions are overlapping. Therefore a clearer definition of the analyst is necessary. The main point is, however, to make the legal status do what you intend it to do.

Legislation in any profession usually protects the marginal section. The outstanding men never need it. Therefore, unless, especially in the profession of analysts, the moral standards are set at a high level, there will be danger of lowering the status by legalization.

On the other hand, very strict moral and technical standards may lead to a fear complex in the individual and thus force him to be overcautious in his statement and analysis, thereby diminishing the value of opinions based on research and judgment. I have in mind the stereotyped CPA certificates. None of us would desire that security analysis certification deteriorate to the status of a mere form letter.

Maurice Neubourg

Report of Committee on Legal Status for Security Analysts

NEW YORK SOCIETY OF SECURITY ANALYSTS

THIS IS AN INFORMAL REPORT of the work of the committee on legal status for security analysts. The members are: Glenelg Caterer, Theron Locke, Benjamin Graham, and Walter Gutman. The purpose is to investigate ways of improving the general status of our profession and its members.

More than a half dozen informal meetings have been held. At the first, Caterer suggested that the primary step was to acquaint more people with the existence of the profession of security analysis. We have a profession in all its usual forms: official societies, a recognized title, a body of science, and a body of teachers giving courses in the science at recognized seats of learning. But only a small percentage of the American public is aware of this.

The organic reason for wishing more publicity is that we cannot improve our position and certainly we cannot achieve legal status unless we are socially useful and recognized rather widely.

Several meetings were held with Floyd Carlisle, who as president of Floyd Carlisle, Inc., handles the advertising for the ANALYSTS JOURNAL. Carlisle drew up a list of tentative proposals, a copy of which was sent to each member of the executive committee.

Carlisle brought to our attention a television program on WPIX called *Wall Street,* which was a sustaining program. He thought that possibly the Society might be interested in sponsoring it. Realizing that we did not have the funds and that a program of this sort might fit other interests besides ours, but realizing also that our profession ought to be represented on such a program, we held a meeting with William Beckers, partner of Spencer, Trask and chairman of the special committee of public relations of the Stock Exchange, and Harold Goodbody, a partner of Goodbody & Company and a member of said committee.

Nothing concrete came of any of the meetings. The Stock Exchange itself was not at the point of taking action; the report of Becker's committee was made for information purposes. We understand that the Stock Exchange committee will report that our Society might be ready and willing to join in an effort to give the public a better understanding of securities. This may be a small step in the right direction, since it brings to the attention of partners of member firms the fact that we have an active Society, which on its own initiative is exploring possibilities of general interest to the investment community, and that we are willing to join to the best of our ability in a common effort. It suggests also that whatever we do to improve our position is done in a co-operative spirit.

A final meeting was held with George Blackett, who had worked on the video program. This again pertained to the video program. The program is off the air, but the hope is that it will go back on in August. In this case it was suggested that we might help out a bit by suggesting or designing telecasts that would improve the program. The committee members present (Caterer and Gutman) promised to dream up a brain child.

The results of four or five months of willing but not too concentrated efforts show the following:

1. It will be hard for any effort to succeed that is not backed by adequate funds and led by an experienced professional. The effort of any committee made up of members of the Society seems likely to run against these difficulties: When the market is active, their energies will be absorbed. The problem of the rather weak economic position of security analysts will seem less pressing when the market is active and strong. When the market becomes less active, the position of the security analysts is fundamentally weaker. Valuable time has passed, and nothing has been done. In my opinion the members must make up their minds to support a professional effort on their behalf if results are to be accomplished. Committee members can advise, guide, and supplement the professional effort, but, if we want to achieve some sort of official or legal status, someone must do a lot of persistent work.

2. The cost of the endeavor is within our means. An assessment of $10 a member would finance a very important effort. The question is: do the members really want a well-planned program to improve their status?

One or several meetings of the Society at large should be called to discuss the question. It seems that we have something very valuable to sell the investing public and also the employing firms and corporations. Good security analysis has tremendous leverage. The public would have much more confidence in the securities business if it believed it had a sure way of getting disinterested, experienced, well-trained advisers. It would feel more confident if it knew that whoever it dealt with in an advisory capacity was a well-trained person who was in the "customer's corner" doing the best he could for him.

If the public had more confidence in the securities business, it is obvious that the business as a whole would be more profitable. Our employers could afford to pay good salaries for security analysis without demanding clear-cut relationships to production of business if the business as a whole were on a status of steady profits. In my opinion the public will not have deep trust in advisers who are partially producers. Neither will they have deep trust in underpaid advisers or advisers who have no official status. There are other possible by-products of legal or official status that would be beneficial to the American economy as a whole. I feel we have every reason to believe that a campaign for improved status and better-defined recognition is in the public interest even though our own personal motive may be in the realm of normal self-interest. If the job is to be done, it must be accomplished with the full energies of the Society, and with the energies of the National Federation of Societies.

If the Society desires to achieve legal status for it and for its members, I am sure a way can be found.

WALTER K. GUTMAN

Report of Fourth Annual Meeting

BOSTON SECURITY ANALYSTS SOCIETY

June 1, 1950

More than 300 security analysts from various parts of the United States, meeting at the Harvard Club recently, were in virtually unanimous agreement that little appears on the economic horizon to mar the near-term outlook for a continued high level of business activity. Most saw scant likelihood of a major recession in the forseeable future, and all were of the opinion that not much in the way of an adjustment downward from present levels of production is likely for the remainder of 1950.

The occasion for the gathering was the fourth annual meeting of the Boston Security Analysts Society and the New England regional meeting of the National Federation, the parent organization for analyst societies in all major U. S. and Canadian financial centers. Attending analysts were from Philadelphia, New York, Seattle, Dallas and all of the New England states.

The President of the Boston Society, George Shannon, made a dinner address, at which he introduced delegates and presented plaques to the former Presidents of the Federation of Financial Analysts. These plaques were given to Kennard Woodworth and Lucien Hooper in appreciation of their great work in helping to establish the Federation and building it to its present eminence. To them all members owe a debt of gratitude.

The reports and summaries of addresses, because of their general interest, are now presented to the Federation of Financial Analysts Societies.

President's Report

GEORGE M. SHANNON*

This is the fourth annual meeting of the Boston Security Analysts Society, the fourth anniversary of the fulfillment of an idea.

Many years ago a small group foresaw in the growth in numbers and in importance of the work of security analysts the need for an organization such as ours that would bring together a comparatively new and growing specialized profession. A few figures will attest to the fact that our society is now firmly established as an important function in our financial community.

Kennard Woodworth in his annual report two years ago pointed out that our first meeting as a society was attended by 27 interested analysts here in our city. At that time we looked forward to some growth in membership and to a program of regular monthly meetings that might be worth while for the membership and for those corporate executives or other analysts who we thought might be interested in addressing our group. We soon found, however, that our organization had a far greater interest and importance than we dared to visualize, for our membership grew beyond our fondest expectation. In like manner, the number of corporate executives that found in our organization an ideal vehicle for discussion and presentation of their progress reports was so large that we soon had to have weekly meetings to accommodate them.

Our first directory contained 118 names. Our present membership is 222 and includes representatives from every leading bank, trust company, insurance company, investment trust, investment counsel, and investment dealer in our city.

We take particular pride in the fact that our membership is essentially of those who devote their primary efforts to the analysis of securities. We represent the buyer and holder of securities as distinct from those whose primary interest is the trading and distribution of securities.

Under the chairmanship of Lin Savage, an outstanding list of speakers have appeared before our group at the regular weekly luncheons that have been held at the Old Union Oyster House in downtown Boston. A list of these speakers is before every one of you on your tables, and, as you look it over, you will find that we have really "outjubileed" our Chamber of Commerce in bringing to our group leading executives from many of the outstanding corporations in our country.

These men came with one essential purpose in mind—to give us a greater understanding of the operations of their respective companies so that we in turn would be able to carry their message to that large number of security holders we represent and who could not possibly afford the time nor the effort to obtain it directly.

Of added interest is the fact that we enter our new season with a backlog of many other outstanding executives who have indicated a greal desire to talk before our group but who could not be accommodated in the program this year because of conflicts in either their own schedule or ours.

An increasingly important function of our program committee is the special trips and luncheon meetings we have been asked to arrange for groups of our members. The Cambridge Electric Light Company and the Boston Edison Company arranged with us for a special visit to see some of their newest facilities. An interesting trip was arranged to visit "research row" at Cambridge. Other group meetings were held where those of you who are specialists in particular fields have been invited to attend. I believe you will agree with me that Lin Savage and those who co-operated with him in arranging the program of the past year deserve a particular vote of thanks from our membership. I can assure you—if you need such assurances—that the society is in competent hands under his leadership during the coming year.

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*George M. Shannon is with Loomis, Sayles & Company, Boston.

Not so well known but of equal importance have been the activities of many others who have contributed much to the growth and development of our organization.

I want to commend particularly to your attention the activities of our education committee which under the leadership of Francis Farwell, again presented an outstanding full-year course in practical security analysis at Northeastern and a second-semester course at Boston University. All told, 64 students were registered in these combined courses, and 24 of our members gave one or more of the lectures. To Dave Loveland was given the arduous task of being the co-ordinator for both of these courses. This has been an outstanding record of service of which we can be truly proud.

There is some question as to whether or not we may have completed the major task of providing educational assistance of this type to the large group of young men and women who have entered our field in the postwar years. However, if there is a sufficient demand from the younger security analysts in the city and from the degree students at the respective universities, we intend to continue these courses again next year.

Another activity is the placement committee operating under the leadership of Herman Pike. This group has undertaken a function that well may become of increasing importance over the years, to counsel those presently employed in the business as well as those who would like to enter our field, and also to assist in finding competent personnel for the many firms that will require new security analysts from time to time.

It would be very easy and indeed quite proper for me to single out for special commendation the many other members who have contributed much to the successful year we are now terminating, but unfortunately time will not permit. I do, however, want to commend the officers and each member of the executive committee who served with me during the past year and participated in so many ways in the program planning and the development of policies to assure the effective fulfillment of the objectives for which we have been organized.

The officers and executive committee elect provide an excellent representation of our membership. I know these men are all interested in the welfare of the Society and eager to provide for our continued success. Whatever personal interest any one of us may have in our organization or in its development in these past few years, not one of us holds a vested interest in its leadership. A year ago we adopted a proposal that somewhat enlarged this executive group but at the same time assures that our executive committee has no permanent members and will not become a "residing place for past presidents." New men and new ideas must and, I trust, will be inserted regularly into the leadership of this as in any other organization to keep it strong.

I believe the successes our Society have achieved might not have been possible were it not for the times and conditions under which we are living today. I believe one of the reasons our profession as analysts has grown is that the financial, economic, and political forces that have been operating in our economy for some time have produced important changes in stock ownership and in corporate managements. The stockholder lists of our principal corporations have grown enormously in the past two decades, as is well known. The typical investor of today is a small investor with a small amount of savings who needs all the assistance he can obtain in the proper selection and in the constant supervision of the shares he owns. The managements of our corporations are becoming increasingly professional managers who likewise need assistance in providing for the welfare of all of those who are interested in a healthy and growing business. There are too many interests in our country who want to break down this system that has brought the Nation so much success and prosperity over the years. In defense, we need increasingly articulate stockholders to assist management in doing a good job and particularly to defend it against those who feel that business can be best run by any one except those who own it.

This constantly broadening list of shareholders in American enterprise is finding it not only convenient but also necessary to pool its resources and efforts in order to insure an effective participation in the ownership and operation of American industry. In a large measure this has been reflected in the growth of the various pools of capital in which each one of us has a respective interest. I strongly believe that one of the greatest opportunities we have in our business is to make sure that we provide for these investors that articulation they want and must have. In this manner we can contribute much to the defense of a free enterprise.

The Business Situation Today and Tomorrow

THOMAS W. PHELPS*

Money is the system of counters by which human beings keep track of what they do for each other. A very small, primitive group of people can get along without money. So can a backwoods family in which the old man lays down the law. But, when you give financial advice to Mrs. Gotrocks and expect to trade if for coffee from Brazil, butter from Minnesota, and entertainment from Hollywood, you must have money. It is not only the easiest but also the only practical means of keeping score in that complicated game we call civilized living.

Keeping track of what we do for each other is just as important to human society as is trap nesting to a chicken farmer. You all know what trap nesting is, but you may doubt that I know, so I will explain it to you. The nest is in a box which is open at one end. When the hen pushes her way in, she lifts the catch on a door which drops down, shutting her in. There she stays until the farmer comes to pick up her egg and let her out. Thus he learns which hens are laying and which are not. Only by knowing how many eggs each hen lays can the poultry raiser decide intelligently which hens to keep in his egg factory and which ones to fricassee.

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*Thomas W. Phelps is assistant to chairman of the board, Socony Vacuum Oil Company, New York.

When money is viewed that way, as a means of keeping human society's books, we can readily see how foolish and how dangerous it is to change the value of money on purpose. To do so defeats the primary object of money. What would be the sense of trap-nesting hens if we counted each egg as *one* on Monday, *two* on Tuesday, and *five* on Wednesday?

Records kept by such a system of counting would soon have our chicken farmer so confused that he would be sure of nothing except that he was still getting no eggs from the roosters. Being unable to cull the poor layers he would find that it cost him more to produce each egg because he was feeding so many inefficient producers instead of eating them.

There are other foolish and dangerous ways of abusing money besides deliberately changing its value. One of those ways is to give money away to prevent economic law from operating. If you will excuse one more trip back to the poultry farm, I can show what I mean there. Our friend the poultry farmer is still trap-nesting his hens. But he has developed a fondness for red hens, and so every day one of the red hens fails to lay an egg he credits her with having laid anyway. Thus, when it comes time to kill off all the poor layers, the red hens will be safe even if they haven't laid an egg since our last Republican President.

Giving away money in subsidies thus tends to defeat the primary object of money in much the same way that changing the value of money does. Both tend to raise production costs and thus lower living standards.

I hope you haven't jumped to the conclusion that I am arguing for dog-eat-dog economics. You can misjudge people badly by not waiting to hear them out, as a young friend of mine discovered at a party. This boy has a slight impediment in his speech, and the hostess, thinking to put him at his ease, introduced him to a charming girl who likewise stuttered a bit. As he steered her to the dance floor, the young man said spritely, "M-m-m-my n-n-name is PPPPETER but I'm nnot a s-s-s—saint."

Smiling warmly, the girl replied, "m-m-m-m-my n-n-n-name is MMMARY but I am n-n-n-not a v-v-v-very good dancer."

Human beings are not chickens either, and the idea of building up a master race while weeding out the unfit has come a cropper too recently to be forgotten by anyone. But two wrongs don't make a right, never did and never will. And there is something fundamentally wrong about the methods we are using to achieve some of our laudable goals. Changing the value of money on purpose and giving away money in subsidies are foolish and dangerous because they are dishonest. The folly lies in the fact that, like the legendary ostrich burying his head in the sand, we are kidding ourselves when we tinker with our monetary system. The danger lies in the possibility that we may become so confused by our self-deceptions that when a real emergency arises we cannot cope with it.

I promise you I won't go back to the chicken farm again tonight, but suppose in peacetime we had a battleship doing target practice, and suppose, to make everyone on board feel good, we decided to count as hits all shells that fell within half a mile of the target.

How would you like to be on that ship when you met a real enemy?

I have not forgotten that you invited me here to talk about "The Business Outlook." What I am trying to say is that as a Nation we have been falsifying our books so seriously and so long that we no longer know ourselves where we are or in what direction we are going.

I understand von Mises points out in his book, "Human Action", that the reason socialism and communism simply cannot compete with capitalism in the long run is that, under those systems, there is no way of telling what is the best way to do anything. Suppose, for instance, under a communistic government, we wanted to bring oil from Texas to New York. How would we decide whether to bring it by pipe line, by railroad tank car, or by ship? Under our system we have the answer as soon as we find out how much it costs by the various alternative methods. We ship the cheapest way. But every interference with our price system, whether by Government or by private monopoly, tends to weaken or destroy the advantages of our system over the socialistic or communistic alternatives.

Even more than a balanced budget, what we need in the United States is a return to calling a spade a spade. This is not an argument against the more abundant life or against doing anything the majority of the people of this country want to do in the way of sharing the wealth or redistributing income. But, as John Knox Jessup points out in a brilliant study of "Britain's Road Down" in the current issue of *Fortune,* "it is better to redistribute income before it goes to market than to falsify prices by controls or hidden subsidies." I wonder why he said "hidden."

The late Thomas F. Woodlock, for many years contributing editor of the *Wall Street Journal,* and a deeply religious man, often spoke and wrote about the danger that a complex civilization built up on Christian ideals could not long survive repudiation of those ideals. What Mr. Woodlock had in mind was that, unless most people live by the Golden Rule, the benefits of specialization in a great industrial nation are consumed by the expense of inspecting and policing. A democracy would seem to be even more vulnerable to chiseling than a totalitarian state. You can chisel on Stalin only once.

One of the darkest clouds on the business horizon, in my opinion, is the popular acceptance of the cock-eyed notion that full employment at constantly rising wages should be our Government's primary objective. We can have it all right but at the price of inflation, dictatorship, or both.

How do I figure that?

Assuming that full employment is the Government's primary objective, what happens when business slows down? The Government may launch a public works program to make jobs. If it borrows the money to pay for it, that is inflationary. But raising taxes to avoid borrowing means still greater unemployment, thus necessitating still more public works and ultimately deficit financing. Another government may subsidize business to create more jobs. But that is inflationary. The Government may take more men into the armed services. That is inflationary. So the Government may revive the OPA and fix prices. But that in turn will force some manufacturers to close down. To provide jobs, the plants must be kept open and so the Government will seize them and operate them itself. That competition will force other plants to close, but the Government will take them over too. So we have a dictatorship.

Now don't get me wrong.

I am in favor of every good thing for everyone, and that includes a good job at good pay. I am in favor of rosy cheeks for children, but rosy cheeks should be the result of good health—the outward and visible sign of a sound body—rather than a primary objective of parents raising children.

I don't want my children to have rosy cheeks due to fever or to paint. I don't want my country to have full employment due to inflation or to slavery. A primary objective of our Government should be the well being of all the people, employers as well as employees, those who have retired as well as those just looking for their first job. Let's have done with robbing Peter to pay Paul.

Sooner or later the buyer, as well as the seller, must be controlled. Broadly speaking, business booms when people spend more than their current earnings, either by going into debt or drawing on their savings. Conversely, in general, business is bad when people spend less than their current earnings, either because they are repaying debt or accumulating savings which they are hoarding rather than investing productively. I am not saying that that need always be so, but I thing your observation and study will confirm mine that it has been so in the past. Wars have been no exceptions. In war, the people, taken as a whole, spend a great deal more than their current earnings. The national indebtedness always increases.

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*The Pfizer Story and Recent Developments in Antibiotics**

MAYNARD E. SIMOND*

During the last few years antibiotics have become such an important factor from the standpoint of world-wide health and as a source of profit to those companies engaged in their production, that it is not strange the investment community is displaying more and more interest in the securities of the companies prominent in this particular segment of the ethical drug industry. It is therefore quite appropriate that we have as one of the subjects for discussion this evening Charles Pfizer & Company—probably the leading manufacturer of antibiotics in the world. Less appropriate is the fact that these remarks are made by an individual who possesses no scientific background and whose official association with Pfizer covers a period of only eight months. Nonetheless, you may derive some consolation in the fact that my business background has been much like that of yourselves, and so at least we talk the same language.

ANTIOBIOTICS AND THE ETHICAL DRUG INDUSTRY

One of mankind's most cherished possessions has always been good health. It is not surprising then, as standards of living continue to rise, as less material effort is required to obtain basic essentials of food, clothing, and shelter, that proportionately greater amounts of our time, money, and interest are devoted to the maintenance of good health and the prolongation of life. Additional assurance of the future of the ethical drug industry may be obtained from the development of such relatively new concepts of medicine as geratics, the treatment of the ills of old age, and preventative medicine, and what the famous economist Thorstein Veblen aptly termed the "insatietability of human wants." Good health and its counterparts, the ethical drug and antibiotic industries, have now become and will remain big business.

Dr. Fishbein, former editor of the *Journal of the American Medical Association,* describes the acceleration of the ethical drug industry in the following terms:

> Twenty-five years ago the drug industry and the medical fraternity felt that much was being accomplished if there was one new major discovery in drug research in twenty-five years. Fifteen years ago, the pace of such discoveries had stepped up to about one new major research discovery in a decade. Today, we have come to expect about one discovery in every six months. The pace will increase even faster in the future. It is my opinion that a few years hence, with the wider spread of health care and the increased productivity in new research medicines, the drug industry may easily be the "Number 1 Industry in Dollars" in the United States.

In what particulars and to what extent is this statement true? The actual story may be obtained by reference to a few basic industry statistics. Up through 1945 the ethical industry was generally characterized as a sound, exceedingly stable, conservative industry with sales, according to Government statisticians, bearing a "direct mathematical relationship to national income." From 1941 to 1945 prescription sales and disposable income actually did go along roughly hand in hand, the former evidencing an increase of 73%, the latter 64%. However, to the probable dismay of the statisticians and economists, this orderly relationship was rudely disrupted beginning in 1946 by the unprecedented expansion of the ethical drug industry. Thus in the period 1945 through 1949 ethical drug sales advanced 71% compared with a rise of only 27% in disposable income.

Antibiotics unquestionably represent the most important single factor in the current development of the ethical drug industry. From a laboratory curiosity in 1940 antibiotics have grown until in 1949 they accounted for $160 million out of total ethical sales of $714 million, or 22%. This percentage will probably increase to approximately 25% in 1950. In other words, during the current year nearly one out of every four dollars spent for prescription drugs will be for antibiotics.

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*MAYNARD E. SIMOND is chairman of the executive committee, Chas. Pfizer & Company.

Some additional idea of the importance of this trend may be obtained from the fact that the New York Department of Hospitals as early as 1948 was spending nearly one half of its total budget on penicillin and streptomycin alone. However, the importance of antibiotics need not be judged solely by dollars. Not long ago Pfizer, in the course of its market studies, had occasion to ask a carefully selected sample of physicians drawn from all sections of the country which product group, in their experience, had made the most valuable contribution to the field of medicine. Of the total responses to this question 68% said antibiotics. When questioned as to which product type offered the greatest immediate opportunities for research antibiotics again led.

Thus, in considering antibiotics from an investment standpoint, we are dealing with a group of products that have become essential to world health, are already of substantial dollar volume, have very marked growth characteristics, and give every evidence that their present importance—both from the standpoint of therapeutic value and of dollar sales and profit—is only an earnest of what may be expected in the future.

ANTIBIOTIC MILESTONES

Public interest in antibiotics may be said to have commenced in 1942, when the British Government sent a committee of scientists to the United States for the purpose of enlisting the assistance and know-how of the American drug industry in the research and development of a highly promising new drug called penicillin. You will recall that things were in a bad way in Britain that year. The blitz was at its height, and thousands were dying of wounds incurred from the bombings. A new anti-infective was urgently needed. Pfizer along with certain other manufacturers accepted the challenge. After several months of intensive round-the-clock efforts, Pfizer succeeded in developing and placing in operation a mass-production technique for penicillin utilizing basic fermentation processes developed over the preceding twenty years. As the result of these efforts, Pfizer was able to supply a large percentage of the material used in initial clinical investigations. It was the continuation of these efforts that made adequate supplies of penicillin available when our troops landed in Normandy on D Day.

The importance and widespread use of this antibiotic are too well known to require elaboration here. Notwithstanding the subsequent introduction of other antibiotics, the demand for penicillin is today greater than it ever has been in the past. For example, in 1949, production in the United States was estimated to have been 133,463 billion Oxford units, compared with 95,855 in 1948.

It was soon recognized that, although penicillin is a remarkable chemotherapeutic drug against certain infectious diseases, it is not effective against other types of organisms such as the tubercle bacillus for instance. Consequently, an intensive and well-considered search for an antibiotic effective against organisms not sensitive to penicillin was undertaken by Dr. Selman Waksman and his collaborators at Rutgers University. These studies culminated in the discovery of streptomycin in September 1943. However, commercial production was not undertaken until 1946. During the latter year a total of 1,132 kilograms of streptomycin was manufactured principally by Merck, Pfizer, and Squibb. Production has risen steadily. In 1949 a total of 83,699 kilograms was produced of which an estimated 70% was used in the treatment of tuberculosis.

It required about four or five years of concerted research for the isolation of two other useful antibiotics. In 1948, Lederle Laboratories developed Aureomycin, one of three "wide-spectrum" antibiotics: Aureomycin, Chloromycetin, and Terramycin. Not only is Aureomycin effective against many of the large germs hit by penicillin, but it is potent also against many of the smaller germs which characteristically are not affected by penicillin: for example, typhus fever, Rocky Mountain spotted fever, and parrot fever. In addition, this product evidenced some promise in combating the very tiny germs known as viruses in certain diseases.

Parke-Davis's Chloromycetin, the second wide-spectrum antibiotic, was obtained originally in 1947 by fermentation methods and later synthesized. Chloromycetin has a far less complicated chemical structure than any of the major antibiotics, and thus is the only antibiotic that can be manufactured economically at the present time by chemical synthesis. In addition to its value in a number of infectious diseases, it has been demonstrated in several clinical campaigns that Chloromycetin is the drug of choice in typhoid fever.

TERRAMYCIN

The latest wide-spectrum antibiotic is Terramycin, announced in January of this year by Pfizer. Terramycin is the result of an intensive antibiotic research campaign by eleven Pfizer scientists and scores of their associates. Their exhaustive studies were followed by an equally concentrated clinical program to evaluate the antibiotic in many hospitals throughout this country and abroad. This widespread clinical investigation made possible through the co-operative efforts of physicians and clinicians, culminated in the approval of a new drug application and the introduction of the product on March 22, 1950. Terramycin is an extremely versatile drug. It is easy to take, generally being administered orally. It is comparatively free from minor side effects such as nausea and vomiting and in recommended doses is nontoxic. In brief, we at Pfizer believe that this drug possesses the basic characteristics required to make it the leading wide-spectrum antibiotic.

Terramycin has evidenced singular effectiveness in the treatment of a variety of medical and surgical conditions due to infections caused by a wide diversity of bacterial species and by certain rickettsial and virus-like diseases. Of particular interest is the effect of Terramycin on certain virus diseases including virus pneumonia, on septic sore throat, on urinary tract infections, on undulant fever, whooping cough, gonorrhea, syphilis, on virus-like venereal diseases, shingles, amoebic dysentery, and on acute staphylococcal infections.

In view of the short time it has been available we feel that Terramycin has been well received by the medical profession.

The following other antibiotics are currently of lesser importance and may or may not develop to have wide acceptance.

Bacitracin. This product was isolated by Columbia University College of Physicians and Surgeons in 1943. It is manufactured by Commercial Solvents and Pfizer, and is particularly useful in certain types of surgical infections.

Polymyxin. Effective against Gram-negative organisms, Polymyxin as been employed experimentally in a variety of conditions. It is under development by Pfizer and Burroughs-Wellcome.

Viomycin. This, the newest of the Pfizer antibiotics, has indications of being effective in the treatment of tuberculosis, especially in certain cases where streptomycin therapy has reached the limit of its effectiveness. Viomycin is under clinical study, but it will be many months before its therapeutic value can be established.

THE FUTURE OF ANTIBIOTICS

A recent study made by Pfizer's market research group indicates that 30% to 50% of the cases requiring the help of a physician can be treated with fair to excellent results with antibiotics. Further extension of the use of antibiotics could be anticipated were there available drugs against diseases for which there are, at present, no specific treatments. For example, if we were to list the incidence of communicable diseases reported in the United States for 1949, it would be found that we have no remedy yet for the top three infections (measles, chicken pox and mumps) which together comprise nearly 70% of the total. More important, there is still no commercially available antibiotic that will affect the deadly killer, cancer. Polio remains an enigma. Antibiotics are of limited value in most kidney infections. Beyond this, the major antbiotics are only of indirect value in general respiratory infections. Respiratory tuberculosis still requires much further clinical study.

Were just the aforesaid gaps filled, it is quite conceivable that antibiotic usage in the United States could easily double or triple. A further step in the direction of providing the clinical profession with additional weapons to fight diseases was achieved when Pfizer recently announced its discovery of Terramycin and Viomycin, already described. Another consideration that would effect the expansion of the antibiotic market lies in the extension of oral therapy for penicillin. It may be noted that oral administration already is the method of choice for the three new wide-spectrum antibiotics: Aureomycin, Chloromycetin, and Terramycin. To this picture we must add the future potential of antibiotics in veterinary medicine and in dentistry, particularly the addition of penicillin to dentifrices to reduce tooth decay.

However, the role of antibiotics is not to be limited to medical usage. The U. S. Department of Agriculture has recently been experimenting with antibiotics in the food-preservative industry. The addition of antibiotics (especially subtilin and lupulon) may serve to lower the cost and make canned foods more appetizing and healthful by permitting the sterilization of food in cans at a much lower temperature without pressure cooking equipment and with preservation of the vitamin content.

Antibiotic research in the future will probably lead down many diverse and unexpected paths, since discoveries are often made by chance. A conspicuous illustration of this lies, in the nutrition field, with the discovery of vitamin B-12 in culture filtrates of such antibiotics as streptomycin, Aureomycin, and Terramycin. This is the same vitamin that produces a remission in patients suffering from pernicious anemia. It has been established that vitamin B-12 is one of the animal protein factors that promotes the growth of chicks, turkeys, swine, and such. Thus, as little as four pounds of fermentation product containing these nutritional factors when added to a ton of animal feed will increase the growth of chickens, turkeys, and swine by as much as 50%.

Concerning human nutrition, our research people tell us that the rapid changes in our agricultural economy are bringing us face to face with what may well be the number one nutritional problem of the future. I refer specifically to the growing world-wide shortage of essential animal proteins. This problem assumes particular significance in human nutrition because of the importance of meat in the daily diet. You may be interested in knowing that the antibiotics industry is making definite progress in conjunction with the afore-mentioned annual nutrition studies in the development of potentially inexpensive and effective animal protein substitutes which we have reason to believe may also be used successfully in human nutrition. In a world where hunger and famine are still rampant, this discovery has inestimable potential humanitarian and commercial significance.

ANTIBIOTICS IN FOREIGN MARKETS

One additional factor must be considered in any appraisal of the future of antibiotics. This is foreign demand. Although we have made terrific strides in the conquest of disease in the United States in the first half of the twentieth century, many other countries have not been equally fortunate. For example, the pneumonia death rate in Madras, India, is estimated at 700 per 100,000 in contrast to New York City's death rate, in recent years, of about 100 per 100,000. Not a single case of cholera has occurred in New York City since 1893; yet 138,864 cases were reported in British India alone in 1946. In many foreign cities, the death rate for all causes is comparable with that of New York City in 1866. The situation is perhaps best highlighted by reference to the life expectancy in various countries, based on the latest available statistics.

Life Expectancy at Birth

United States	68.3 years
Canada	67.2
France	65.3
England and Wales	62.3
Italy	54.9
Portugal	50.7
Japan	48.3
Venezuela	46.7
Colombia	46.3
Chile	41.9
Egypt	38.6
Mexico	33.3
India	28.6

The terrific variations in longevity indicate the wide differences in general standards of health in the various countries of the world. Thus, such countres as India, Mexico and Egypt, to mention only a few where life expectancy is not too much higher than in Rome over 2,000 years ago, afford unprecedented opportunities for the future development and use of antibiotics.

PFIZER'S POSITION IN ANTIBIOTICS—FIRST 100 YEARS

Pfizer's entrance into and its achievements in the antibiotics field have not been accidental. It has been largely the combination of Pfizer's fermentation experience and its research that has put it in the forefront of the world's antibiotic producers.

Founded in 1849, Pfizer in its earliest years became an important producer of certain then significant drug items, such as calomel, boric acid, refined camphor, and a variety of iodide preparations.

An early and extremely important milestone in Pfizer's history was the first successful commercial biological production of citric acid. Faced with the problem of obtaining a constant supply of imported citrate of lime at reasonable prices, Pfizer in 1914 set up a research program on the fermentation of citric acid from sucrose. On the basis of this research, pilot plant operations were begun in 1919 culminating in the establishment of full-scale plant facilities in 1923. Ever since then Pfizer has been a very important factor in the citric field.

Some indications of the versatility of the fermentation processes developed by Pfizer may be obtained from a number of subsequent developments including the first commercial production of gluconic acid in 1929. Somewhat later, oxalic, itaconic, and fumaric acids were manufactured using the same basic fermentation processes. By combining organic synthesis with fermentation processes, Pfizer in 1936 became one of the first companies to synthesize vitamin C on a commercial scale.

RESEARCH ACTIVITIES

Pfizer is proud of its research organization. Some indication of the importance attributed by management to this function may be obtained from the fact that during the last two years research facilities and personnel have nearly doubled.

Research activities at Pfizer may be subdivided into four categories: biochemical, organic chemical, chemical engineering, and medicinal or clinical. Biochemical activities include the maintenance of a culture screening program, medicinal bacteriology, pharmacology, biochemical engineering, and the study of atomic isotopes in fermentation. The organic chemical research program undertakes the synthesis of organic products, molecular structure studies, application of physics and instrumentation, and applied pharmaceutical research. The chemical engineering branch of Pfizer's research activities handles process development, equipment design, plant layout, and pilot plant operation. In the latter connection, within the last year a large fully equipped building has been constructed for chemical engineering and process research. Pfizer also conducts its own research on processing equipment.

These various research activities have played an important part not only in the discovery of Terramycin and Viomycin, but also in the development of vitamin A synthesis, of vitamin B-12 concentrates, the synthesis of caffeine and theophylline and of Bi-Con APF-3, the latter being an animal feed supplement with indications of wide use.

PRODUCTION FACILITIES

Pfizer is proud of its production facilities. Production know-how has long been the company's "secret weapon." In the last five years, Pfizer has spent more than $18 million for expansion of its manufacturing facilities, and, as you gentlemen may know, these expenditures were made entirely out of earnings, except for the proceeds of $5 million of 3½% preferred stock placed privately in 1947. Operation of plants owned by the company at Brooklyn, N. Y., and Groton, Conn., and of a plant leased from the Government at Terre Haute, Ind., permits many of the company's products to be made at any one of these locations and contributes materially to the diversity and flexibility of the over-all operation.

In the latter part of 1946 Pfizer planted some important production seeds in the rocks of New England when it purchased from the Government the Victory Yard at Groton, Conn., which had been operated by the Electric Boat Company for the construction of submarines. This original tract comprised 28 acres and contained a variety of buildings, some of which were well adapted for chemical production. Subsequently the company purchased an additional 32 acres at that point for expansion purposes.

Those New England rocks proved to be most fertile, as Pfizer's initial investment of slightly over a million dollars has now been increased to several times that figure, and the Groton operation has assumed a very important place in the Pfizer production picture. You will be interested to know that at Groton we produce not only penicillin and Terramycin, but also citric acid, caffeine, theophylline, and oxalic acid. Also we have under construction there a large plant for the production of synthetic vitamin A, which is expected to be in operation this fall.

We have been much pleased with the co-operation of the State and local authorities at Groton and with the type of labor available there and have every reason to expect that Pfizer's Groton operations will become more and more a factor in the economy of New England.

SALES ORGANIZATION

Pfizer is proud of its expanded sales organization. To meet the growing need for product and operational diversification, the domestic sales operation has been broken down into four operating segments: industrial chemicals; food, feed and beverage; bulk pharmaceutical; and packaged pharmaceutical sales divisions, each with its own manager and supporting staff. These operations in turn are backed up by an aggressive product development program.

CONCLUSION

I want to emphasize that, important as antibiotics are to Pfizer, they currently comprise only about 45% of its total sales volume. Its other stand-bys, many of which have been important to Pfizer for years, include such basic products as citric acid, a number of citrates, the vitamins, tar-

taric acid, cream of tartar, tartrates, Bi-Con APF-3, natural and synthetic caffeine and theophylline, and other items having wide use not only in the pharmaceutical, but in the food, feed, beverage, and industrial fields as well.

We are all familiar with the importance that the discovery of Aureomycin has been to American Cyanamid, and Chloromycetin to Parke-Davis. We at Pfizer are naturally hopeful that Terramycin and Viomycin may prove of importance to our own company. However, our research staffs are constantly at work endeavoring to isolate other antibiotics and to develop improvements of existing antibiotics. We believe that the same skills and teamwork that brought about the discovery of Terramycin and Viomycin within recent months may be counted on to give a good performance over the coming years.

Whether or not Pfizer will be able to maintain its position is, of course, problematical. It has no monopoly on production facilities and experience, scientific brains, imagination, and capital (and I might add that luck is said to have been an occasional factor)—all of which are required in large measure to establish and maintain an important position in the highly competitive antibiotic field.

The chemical industry is so dynamic and is characterized by such sudden change that it is not possible to chart far ahead all the opportunities and problems that will arise.

However, with one hundred years' production know-how backed by extraordinary productive facilities, skilled research, an expanded sales organization, loyal personnel, and an aggressive, hard-working management, Pfizer enters its second century of operation with confidence in its future.

International Paper Company and the Paper Industry

H. R. WEAVER

The paper industry is one of the oldest manufacturing industries in the United States. It has grown so that it now ranks sixth in this class with an annual output valued at $2,812 million.

The real growth in the industry came when it learned to make paper out of wood on Fourdrinier machines. In the early days the only kinds of wood used in any quantity were spruce and balsam.

It was natural that the development first took place in areas having substantial forests of these species. Power and accessibility to consuming centers were also important factors. Thus the first substantial growth took place in New England, New York, and the Michigan-Minnesota region.

Then, as demand grew, the industry expanded in Canada and on the West Coast where there were vast areas of spruce and balsam and many large water powers.

Beginning in the early part of the twentieth century, the industry learned to make strong kraft papers out of pine, and that was the beginning of a great development in the South, which is still going on today.

It would be possible to trace this growth by presenting a mass of statistics, but this could hardly be of interest to you since your interests lie in today and tomorrow rather than yesterday.

However, it is impossible to understand the present, much less estimate the future, without some idea of the immediate past.

INDUSTRY OVER PAST 10 YEARS

I will therefore give you some figures to indicate the growth of the industry over the past ten years. In 1940 the U. S. consumption of all kinds of paper and paperboard was 16,757,000 tons whereas in 1949 it had jumped to 24,701,000 tons, an increase of over 47%.

It is a misconception to think of the so-called paper industry as one industry. Actually it is made up of a number of different industries using different methods of manufacture and different raw materials and serving quite different markets.

The figures I gave you for the industry as a whole could be broken down into an almost limitless number of different grades, but for the purposes of this talk I will mention only the largest volume items. Kraft and other paperboard increased from 6,142,000 tons in 1940 to 9,909,000 tons in 1949, or 61%; newsprint from 3,775,000 tons to 5,529,000 tons, or 46%. Other grades increased reasonably close to the total percentage with the exception of coarse papers, which fell somewhat behind the average increase.

These substantial increases have been brought about partly by the increase in population but more particularly by the increase in usage. Per capita usage of all kinds of paper is far higher in the United States than in any other country in the world. The growth has been steady and continuous except for temporary setbacks. There is no indication that a saturation point has been reached in this country, and certainly there is opportunity for tremendous growth in the rest of the world.

DEMAND GOVERNED BY BUSINESS ACTIVITY

Naturally the demand for paper in the future will be governed by the general level of business activity. There will be ups and downs just as there have been in the past. However, in past depression periods the demand for paper has not fallen off to the same extent as that for other manufactured goods; and it is reasonable to expect that this same condition will hold for the future. This is due primarily to two factors: (1) Paper is really a consumption product with demand following demand for foods more closely than for manufactured products. (2) New uses constantly being found tend to offset temporary decreases in past uses.

I presume some of you will wonder how I reconcile these statements with the fact that in past depression periods the profits of the paper industry have decreased perhaps even more than in general manufacturing industries. The answer of course is in the price cutting that has taken place in past low volume periods. Much of this was due to involuntary action forced by the general financial weakness of the industry. You all know that the industry is in much better financial condition today than it has ever been. I can make no predictions but I can hope that the forced price cutting of the past will not be a necessity for the future. It is bad enough to lose volume without losing price at the same time.

Speaking generally, the United States produces its own needs for paper with the one big exception of newsprint, 85% of which is supplied by imports—principally from Canada and Newfoundland. With this exception there is little likelihood of substantial imports of paper into this country in the near future as foreign mills will have their hands full taking care of foreign demand.

We do import large quantities of pulp into this country for conversion into paper and rayon. Imports in 1949 amounted to 1,764,862 tons. We will have to continue importing these pulps at least until additional pulp capacity is provided in the United States.

PULPWOOD PROBLEM

One of the big problems the industry has to face is the task of working out a situation whereby the growth of pulpwood each year equals the usage. In the early years the industry apparently thought the supply of pulpwood was limitless, but, as usage increased, it became apparent that this was not so. Most of the companies in the industry are now aware that they cannot rely on nature alone to grow the wood that they need and they are spending sizable sums to rectify this situation.

The chief means employed are:

1. Fire protection and fire prevention education.
2. Tree planting.
3. Combating tree diseases.
4. Utilizing species of wood other than spruce, balsam, and pine in the production of paper.

Intensified work along these lines should provide ample wood for the future of the industry.

INTERNATIONAL PAPER COMPANY

Having given you this thumbnail sketch of the progress made by the paper industry as a whole, I will now attempt to show you very briefly the part played by International Paper Company in the developments of the past ten years.

Total production of the company and its Canadian subsidiaries increased from 2,275,000 tons in 1940 to 2,959,420 tons in 1949, an increase of 30% against the increase in consumption of the entire industry in the United States of 47%.

This 30% increase varied in our different grades, the principal increases being 71% in kraft container board, 153% in bleached kraft papers and board, and 40% in newsprint. Other grades increased less and some actually decreased.

The productive capacity of the company increased from 2,646,070 tons at the beginning of 1940 to 3,489,761 tons January 1, 1950, an increase of 32%.

About one half of our total capacity is in the South, about one third in Canada, and about one sixth in northern United States.

These figures when compared with the increase in the industry as a whole show that there has been no excessive expansion on the part of our company. Most of the expansion that has taken place has been in the South.

We have also made considerable progress in the converted products field. Figures showing this progress are given in Table 1:

TABLE 1

	1940	1949
Shipping containers (one month*)	8,699*	219,499
Grocery, multiwall & misc. bags	71,473	132,071
Insulating board—Canada	18,968	33,171
Plywood—Canada	....	9,621
Milk containers & misc. products	....	77,253
Total	99,110	471,615

Entry into new fields and expansion in fields in which we were engaged in 1940 have accomplished two purposes: provided an outlet for part of our paper production, and increased our profits as the converting operations in and of themselves have been profitable.

We have no approved appropriations at the moment involving expansion of capacity with the exception of a new rayon pulp mill located at Natchez, Miss., which is just about completed. I will read to you the remarks that our president, Mr. Hinman, made at our annual stockholders' meeting with reference to our Natchez mill:

> Our new mill at Natchez, Miss., will open about June 1. The work has progressed according to schedule. We expect to have the people of Natchez and distinguished guests from the state and elsewhere attend the opening ceremonies. You already know that the mill has been built to produce by a new process dissolving pulp for use in the production of synthetic textiles, Cellophane, plastics, and other such products. The process was developed jointly by the Southern Kraft Division and the Industrial Cellulose Research, Ltd., laboratories at Hawkesbury, and, in view of the fact that it is new, we intend to maintain a certain amount of secrecy about it.
>
> We foresee a strong, long-term market for dissolving pulp and we intend to maintain our strong position as a source of supply in this market. We have a long history of working successfully with the technical people in the synthetic textiles industry. The laboratories and pilot plants at Hawkesbury were established in the first instance primarily to assist in the development of superior pulps for use in the production of synthetic textiles and later Cellophane, plastics, and similar products. The Kipawa mill at Temiskaming, Quebec, was the first mill on this continent built to produce dissolving pulp, and we also manufacture dissolving pulp at Hawkesbury, Ontario, and Gatineau, Quebec. We have worked very closely with the best technical men among our customers—often within their own plants.

We do have a substantial amount of unexpended appropriations involving replacements and equipment to increase efficiency and to keep pace with changes that are constantly occurring in the industry. It is our policy to set aside Government obligations to cover all capital appropriations in the United States when made—always allowing for depreciation funds to accrue during the following year. We expect to make similar appropriations in the future as well as to increase our capacity if the demand for paper justifies it.

ULTIMATE TEST OF LARGE ORGANIZATION

We now come to the ultimate test of any large organization: What profits are we making and how do we use those profits? At times I have had my doubts as to which was more important—the earning of profits or the judgment used in spending them. I must admit that I have had to conclude that earning the money is more important, but how we spend it comes a close second.

I know that you are more interested in the future than in the past, but I must repeat—one can only judge the future of a corporation by the past, especially if its management personnel is unchanged, which is the situation in our company.

Over the past ten years we had net earnings before special noncash reserves of $271 million and paid out $104 million in dividends, leaving $167 million for use in the business. This was spent—$62 million for working capital, $52 million plus depreciation and depletion reserves for capital assets, and $59 million for retirement of funded debt. These figures do not balance by $6 million, which is accounted for by the deduction from earnings of certain amounts for contingent liabilities that have not yet occurred.

There is always a question of how much should be paid out as dividends and how much used in strengthening the financial condition of the company. Having had debt trouble in the past—particularly in the depression years—we planned to get out of debt and stay out. We had to increase our working capital because of increased price levels and increased volume, which affected accounts receivable and inventories, and also we needed more working cash. As to expansion, I have already covered that subject pretty thoroughly.

I presume you all know that our earnings for the first quarter of 1950 were $16,295,248, or $2.26 per share.

Now let us see how the changes in International Paper Company earnings in 1949 and the quarter of 1950 compared with changes in paper industry earnings as reported by the National City Bank and the *Wall Street Journal* May 22, 1950.

TABLE 2

	Paper Industry	*I. P. Co.*
1949 vs. 1948 (NCB)	—29%	—14%
1st quarter 1950 vs. last quarter 1949 (NCB) (22 Companies)	— 9	+ 3
1st quarter 1950 vs. 1st quarter 1949 (32 companies) *Wall St. Journal*	+ 7.7	+18

As for the future, I will make no predictions but I will tell you that in the first two months of the second quarter all our mills in the South and in Canada ran to capacity while in the northern United States our mills ran on approximately a five-day-week basis.

No picture of International Paper Company would be complete without mention of its financial condition as of December 31, 1949—I might say it has improved since that date.

In round figures we had $34 million in unappropriated cash and Government securities, $8,767,000 in Governments set aside for possible increase in inventories, $23,596,000 in Governments to cover all appropriations for capital expenditures in the United States allowing for 1950 depreciation reserve. Our 1949 accrued United States and state income taxes were covered by a corresponding amount of Government securities. Our receivables and inventories exceeded our total liabilities by $54,277,000.

In conclusion, I realize that the information I have given you is rather sketchy, but we are always willing to explain any of the affairs of the company to our stockholders, and I would be glad to see any of you in my office in New York at any time I am there.

Outlook for the Petroleum Industry

E. L. KENNEDY*

The oil industry which occupies a place in the economy of the United States is of a size and character and has a record of accomplishments in serving the public, the Government, and labor that makes it an attractive vehicle for longer-range investment. This assertion rests on considerations that did not obtain in the 1930's. This is a different industry from the one investors saw during that period, and there is little or no prospect of returning to the chaotic conditions of that period, although no investor should assume a continuation indefinitely of crude prices at present levels.

This industry will continue to be very sensitive to supply and demand changes, but pronounced and sustained unbalance in these factors should be less serious than in the past for the following reasons:

1. Statutory control over production is now firmly established and gives more weight to true conservation.
2. Even though we are currently finding more oil than in recent years, still discoveries are more costly.
3. Product economics for the burning fuels has changed from a by-product to an essential status. Only one product, residual, is tied directly to industrial activity and must be merchandised on a price basis in competition with another product.
4. The high level of demand, more than 50% above 1940, makes it easier to handle problems that formerly were quite consequential. Future fluctuations in price which determine investor profits will occur at a higher general level than in the past and in all probability with a smaller amplitude of movement. The complete dominance of the picture by the huge discoveries and great overproduction of the past is giving way to controlled adequate supply.

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*E. L. KENNEDY is with Lehman Corporation, New York.

Outlook for the Railroad Industry

PIERRE R. BRETEY*

Net earnings of the class I carriers should range between $550 and $600 million this year. This would compare with average net earnings of $478.9 million for the four postwar years 1945-48, inclusive, with a war peak (1942) of $901.7 million, a postwar peak (1948) of $699.4 million, and $438.1 million in 1949.

Although earnings at an annual rate of $550 million still leave much to be desired and do not permit sufficient regeneration of cash wherewith to finance large-scale modernization and improvement programs, they are more than adequate to support higher market prices for the majority of rail securities. Favorable influences as reflected in March and April results are still operative, with the likelihood of their continuance over the remainder of the year resultant from cumulative large capital expenditures, primarily Dieselization and yard and signal modernization. All railroads

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TABLE 1. OPERATING AND FINANCIAL PERFORMAN

Carriers Rcorganized since

	% of Gross Carried Through to N.R.O.I. Before Federal Income Taxes	% of Gross Absorbed by Fixed Chargee	% of Gross Absorbed by Contingent Interest	% of Gross Absorbed by Federal Income Taxes	% of Gross Carried Through to N.R.O.I. After Federal Income Taxes	% of Gross Absorbed by Preferred Dividends	% of Gro Availabl Common before ing Fund
Baltimore & Ohio	10.15%	5.61%	2.10%(a)	2.29%	7.86%	0.66%	1.93
Boston & Maine	7.09	4.13	1.46	1.05	6.06	1.95 (b)	None
Central of Georgia	.61	1.69	1.73	-	.61	2.23	None
Chicago & Eastern Illincis (Pro-forma)	4.13	3.24	2.37 (c)	.13Cr.	4.27	2.69	None
Chicago Great Western	10.49	2.25	0.38	2.24	8.25	2.84	2.99
Chicago Indianapolis & Louisville	7.95	1.50	3.36(h)	1.27	6.68	2.42	None
Chicago, Milwaukee,St. Paul & Pacific	5.82	1.76	1.86(d)	1.22	4.60	2.36	None
Chicago & North Western	1.19	1.52	1.99	0.41Cr.	1.60	2.64	None
Chicago, Rock Island & Pacific	16.01	1.31	-	5.27	10.74	1.91	7.98
Colorado & Southern (only)	11.19	4.53	4.24	4.39	6.80	5.12 (e)	1.44
Delaware & Hudson	9.65	3.73		1.53	8.12		4.69
Denver & Rio Grande Western	16.06	3.57	2.59	3.39	12.67	2.48	3.89
Erie	8.57	3.43	1.44	1.49	7.08	1.36	2.65
Florida East Coast	4.55	17.41	-	5.33	Def.	-	None
Gulf, Mobile & Ohio	12.94	3.12	1.66	3.35	9.59	1.95	3.54
Lehigh Valley (Pro-forma)	8.08	5.35	2.89	-	8.08	-	1.04
Minneapolis & St. Louis	11.32	0.78	-	4.13	7.19	-	6.92
Minn., St.Paul & Sault Sainte Marie (only)	7.31	2.49 (f)	2.49 (f)	1.86	5.45	-	3.53
Missouri-Kansas-Texas	14.95	3.20	0.90	4.72	10.23	6.21	0.27
Missouri Pacific (old company)	8.79	9.92	-	0.57Cr.	9.36	2.07	None
New Orleans, Texas & Mexico	19.12	7.43	-	4.10	15.02	-	8.34
International-Great Northern	9.03	6.26	3.33	0.17Cr.	8.86	-	0.37
Missouri Pacific System (old companies)	10.41	9.06	0.42	0.22	10.19	1.48	1.01
" " proposed ICC plan,pro-forma ($ a	10.41	3.60	3.16(k)	0.22	10.19	2.07	3.16
New York, New Haven & Hartford	6.41	4.16	2.23	1.20	5.21	1.35	0.56
Norfolk Southern	10.00	2.82	1.04	3.41	6.59	-	5.03
St. Louis-San Francisco (System) (m)	12.70	3.46	2.31	3.12	9.58	2.90	2.14
Seaboard Air Line	12.26	1.55	1.60	3.27	8.99	0.61	6.03
Wabash	11.40	1.95	0.88	3.34	8.06	1.49	4.58
Western Pacific (System) (m)	13.22	1.34	0.69	2.09	11.13	3.89	5.38
Wisconsin Central (Old Company)	7.88	7.82	-	0.09Cr.	7.97	1.72	None

(a) 1.01% Secured Contingent Interest; 1.09% Unsecured Contingent Interest
(b) Based on 1st preferred dividend requirements. Junior preferred requirements total 3.32% of gross
(c) Does not include Capital or Sinking Fund Charges senior to Income Bond interest, amounting to $400,000 or 1.44% of Gross Revenues
(d) "A Income interest 1.14%; "B" Income Interest 0.72%
(e) 2.56% 1st preferred; ?.56% 2nd preferred

are not likely to benefit from these developments. Divergent trends, operative since the depression '30's, arising in large part from industrial growth and industrial decentralization, are likely to continue. The eastern roads, burdened with heavy terminal costs and large passenger business, will be hard put to recover their relative former earning power.

The industry is beset with numerous problems which have been aired in the press with increasing frequency in recent months. However, one potentially adverse factor, which should be watched carefully by investors in railroad securities, is the pressure on costs of increasing Brotherhood demands. If all union wage demands exceed productivity, and if marginal unemployment is offset by rising Government expenditures in accordance with the thinking of Mr. Keyserling and his associates, then the "perpetual inflation" of what Professor Sumner Slichter calls the "Laboristic Society" is inevitable. In such an event, the railroads will be as adversely affected as they were in the immediate postwar economy.

For the immediate future, however, investors can ignore this possible long-term threat to the industry. Accordingly such representative equities as Union Pacific; Atchison, Topeka & Santa Fe; Great Northern; Southern Pacific; Atlantic Coast Line; Seaboard; Kansas City Southern; Illinois Central; and Northern Pacific have much to commend themselves in their respective classes for holding for a period of from six to twelve months.

VEALED IN CERTAIN SIGNIFICANT RATIOS

in Reorganization

ecia- as % ixed ges	% of Gross Absorbed by Depreciation	Coverage of Annual Fixed Charges by Working Capital	Working Capital as % of Gross Revenues	% of Gross Absorbed by Rental Debits	Maintenance Ratios				Transportation Ratios			
					1949	1948	1947	1941	1949	1948	1947	1941
36%	4.37%	1.86x	10.41%	2.04%	32.9%	32.7%	33.6%	32.2%	42.4%	41.9%	43.3%	32.9%
09	4.17	3.55x	14.68	4.48	32.2	31.7	31.5	26.9	43.5	41.4	41.8	36.0
30	3.99	6.57x	11.07	1.16	33.3	31.5	32.9	27.3	48.2	46.9	49.9	36.8
44	4.93	1.83x	5.93	4.96	31.8	31.2	31.9	28.8	42.6	42.0	44.4	36.5
49	4.64	3.34x	7.48	8.45	34.0	26.8	27.5	24.1	34.6	40.3	44.6	34.7
89	5.31	13.08x	19.55	5.37	32.8	31.6	30.5	27.0	37.9	38.7	41.0	31.7
09	5.55	10.58x	18.56	2.24	34.9	33.1	32.3	30.7	43.3	43.1	41.7	33.7
90	6.60	5.93x	9.04	1.13	35.4	33.5	33.2	31.4	47.8	44.6	44.0	36.4
73	3.96	11.91x	15.64	4.69	29.4	27.2	28.3	29.4	36.5	38.2	38.0	34.3
51	3.73	2.88x	12.99	4.49	31.9	31.3	31.8	33.2	38.4	42.3	41.3	35.6
11	4.03	5.14x	19.11	0.58	35.7	34.1	33.9	28.6	41.8	38.2	38.4	33.5
02	5.17	9.81x	34.93	0.24Cr.	32.4	28.1	30.3	34.2	36.2	35.5	37.1	35.1
04	4.63	2.45x	8.36	3.10	31.6	27.2	27.9	25.8	42.6	40.6	44.3	36.3
16	5.08	4.35x	75.67	4.49	36.0	33.3	38.9	31.4	37.7	40.3	38.9	33.9
77	5.33	5.33x	16.62	4.52	35.2	33.4	34.1	28.8	32.3	32.1	32.7	33.3
37	4.99	4.62x	24.72	3.07	31.5	29.9	30.0	23.9	43.7	44.0	46.9	39.0
00	5.69	4.52x	3.53	1.31	35.0	31.7	29.6	32.3	33.7	32.9	33.3	33.4
25(g)	4.13	11.10x(g)	27.56	1.89	37.2	36.5	34.3	31.2	40.8	40.4	41.9	36.7
77	3.83	2.96x	9.47	5.51	28.7	26.8	29.6	30.4	37.1	39.2	40.0	35.2
34	5.29	2.97x	29.45	2.80	36.0	30.8	32.3	29.9	39.9	39.2	39.4	32.7
19	3.14	1.71x	12.73	6.91	29.7	30.2	30.1	27.3	34.0	32.8	33.4	30.2
28	3.96	3.24x	20.26	4.66	34.7	31.6	33.7	33.3	41.4	44.2	43.7	38.3
42	4.78	2.70x	25.65	3.68	-	-	-	-	-	-	-	-
76	4.78	7.20x	25.65	3.68	-	-	-	-	-	-	-	-
47	4.88	3.14x	13.07	6.13	30.3	29.1	29.7	27.5	42.5	41.8	43.1	36.1
54	5.03	3.19x	9.00	2.92	33.2	32.6	33.6	29.0	33.7	34.3	38.8	34.7
90	5.56	7.44x	25.73	.05Cr.	34.3	31.0	30.1	31.2	39.3	41.6	41.7	35.5
50	4.60	7.03x	10.94	1.44	34.7	33.2	33.7	32.2	37.9	38.0	39.7	35.2
94	3.97	6.49x	12.63	4.93	28.7	25.9	27.3	26.5	42.6	39.3	39.1	35.2
14	4.22	21.08x	28.26	2.10	33.5	30.4	30.4	27.0	35.0	35.2	36.1	36.0
21	3.30	4.23x	33.03	5.89	31.1	26.4	25.7	27.1	42.4	40.1	41.0	35.5

(f) Soo Line's fixed charges are but $5,000; fixed and contingent charges $880,000 - first mortgage Income interest 0.80% and second mortgage Income interest 1.69% of gross

(g) % of Fixed and Contingent Charges

(h) 1.45% for first mortgage income interest and 1.91% for second mortgage income interest

(k) 2.67% for General Mortgage A Income interest and 0.49% for General Mortgage B Income interest

(m) Company only for 1949

(n) Not adjusted for change in Federal Income Taxes which the new capitalization would entail

TABLE 2. OPERATING AND FINANCIAL PERFORMA

Carriers not Reorg

	% of Gross Carried Through to N.R.O.I. before Federal Income Taxes	% of Gross Absorbed by Fixed Charges	% of Gross Absorbed by Federal Income Taxes	% of Gross Carried Through to N.R.O.I. After Federal Income Taxes	% of Gross Absorbed by Preferred Dividends	% of G Availa for Co before ing Fu
Atchison, Topeka & Santa Fe	18.08%	1.76 %(b)	6.55%	11.53%	1.29%	9.
Atlantic Coast Line	7.85	3.48	2.36	5.49	-	6.
Bangor & Aroostook	20.37	4.51	6.07	14.30	1.47	8.
Chesapeake & Ohio (non-consol.)	13.51	4.26	4.08	9.43	0.25	3.
Chicago, Burlington & Quincy	13.94	2.67	4.94	9.00	-	7.
Delaware, Lackawanna & Western	10.32	6.79(c)	1.40	8.92	-	2.
Great Northern	13.81	3.62	4.13	9.68	-	8.
Illinois Central	14.12	4.14	4.20	9.92	0.44	5.
Kansas City Southern	32.52	6.14	9.93	22.59	2.11	16.
Louisiana & Arkansas	28.18	4.07	9.80	18.38	1.60	13.
Louisville & Nashville	11.33	4.18	4.09	7.24	-	4.
Maine Central	13.18	5.27	4.18	9.00	0.94(e)	3.
Nashville, Chattanooga & St. Louis	14.73	4.90	4.05	10.68	-	6.
New York Central	4.87	6.12	0.24	4.63	-	1.
New York, Chicago & St. Louis (Nickel Plate) (a)	19.34	3.68	6.04	13.30	2.19	10.
Norfolk & Western	20.81	1.30	6.85	13.96	0.59	13.
Northern Pacific	10.30	6.81	.96(n)	9.34	-	6.
Pennsylvania	5.36(m)	9.24(f)	.98	4.38	-	1.
Pittsburgh & Lake Erie	23.84	-	8.09	15.75	-	13.
Pittsburgh & West Virginia	22.64	7.57	6.93	15.71	-	7.
Reading	11.10	4.94	2.55	8.55	2.55(j)	2.
St.Louis & Southwestern (Cotton Belt)	27.29	3.06	10.86	16.43	1.65	12.
Southern Pacific	10.84	3.83	3.30	7.54	-	5.
Southern Railway	14.10	6.10	3.82	10.28	1.41	4.
Texas & Pacific	13.25	4.53	3.00	10.26	1.90	6.
Union Pacific	9.41	1.55	3.97	5.44	1.00	11.
Virginian Railway	27.28	7.42	6.36	20.92	5.74	6.
Western Maryland	25.83	7.18	8.60	17.23	3.82(k)	6.

(a) For the month of December based on consolidated figures of Nickel Plate and Wheeling & Lake Erie
(b) 1.35% Fixed Charges; 0.41% Contingent Charges
(c) 6.10% Fixed Charges; 0.69% Contingent Charges
(d) Preferred Stock sole equity
(e) 1st Preferred 0.32%; Junior Preferred 0.62%. No allowance made for capitalization of preferred arrears
(f) 8.47% Fixed Charges; 0.77% Contingent Charges
(g) No computation possible, company having no debt and no corresponding fixed charges

The Outlook for the Steel Industry

A. S. RUDD*

Conditions in the market for steel products today are closely analogous to those in 1947 and 1948. Record production cannot satisfy the apparent demand. To supply output from regular sources, many customers have arranged and are arranging expensive "conversion" deals. Scrap prices are soaring and, to supplement domestic supplies, some material is again being imported from Germany. "Premium" prices again have become quite common, particularly among the smaller producers. Some "hand mills" are charging virtually double the "going prices" for hot rolled and galvanized sheets. In short, steel is in the midst of another boom period.

From all signs, the current quarter will set a new record for steel production, with ingot output in the vicinity of 25 million tons. The peak quarterly production to date was the first of 1949, with 24,100,000 tons. Based on steelmakers' crammed order books, production should be well maintained through the third with demand pressure keeping normal seasonal downturn to a minimum. Peak production scheduled by the automobile industry and the high rate of construction activity will be the principal supporting factors for steel, as they have been all along. Directly or indirectly, these two consuming outlets are accounting for close to half of the steel shipments.

PROFITS WILL REACH NEW HIGHS

In keeping with record-breaking production and despite some rise in costs, notably for scrap, steelmakers' second quarter profits are likely to reach new postwar highs. The combined net incomes of 12 leading producers, represent-

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*A. S. RUDD is with Shields and Company.

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ation of es	% of Gross Absorbed by Depreciation	Coverage of Annual Fixed Chgs. by Working Capital	Working Capital as % of Gross Revenues	% of Gross Absorbed by Rental Debits	Maintenance Ratios				Transportation Ratios			
					1949	1948	1947	1941	1949	1948	1947	1941
75%	4.37%	16.87x	22.77%	0.50%	35.3%	32.5%	32.9%	32.0%	33.2%	34.9%	34.1%	33.1%
73	3.64	4.63x	16.11	0.83	35.0	36.7	38.1	27.0	41.9	42.9	42.4	35.5
82	5.76	3.70x	16.70	0.43	39.3	34.7	38.7	35.5	25.6	26.1	30.2	26.6
10	6.27	0.89x	3.79	0.61Cr.	36.5	33.0	32.2	27.6	36.4	35.9	35.7	25.3
19	5.50	4.25x	11.32	2.26	34.3	29.6	28.1	31.3	36.2	34.5	34.3	33.6
04	5.68	1.75x	10.72	0.54	29.9	26.9	28.0	24.7	45.1	43.4	45.5	41.2
69	4.08	4.81x	17.42	1.78	35.4	32.9	32.7	30.3	35.4	36.9	35.9	27.9
03	5.05	4.41x	18.26	1.02	34.2	33.2	33.6	31.4	36.7	36.1	36.3	34.4
37	3.09	2.27x	13.93	5.98	20.3	19.6	22.8	27.1	29.2	27.6	29.5	28.4
79	3.77	7.12x	28.96	4.85	23.1	20.7	22.9	26.3	31.7	32.2	31.5	25.3
.72	5.04	5.89x	24.62	3.08Cr.	36.4	34.5	35.2	29.3	41.3	42.0	41.8	31.2
.83	4.26	1.96x	10.36	1.95	38.1	37.2	34.5	31.2	36.0	37.7	39.6	34.1
.13	4.41	6.27x	30.71	0.12	30.4	32.4	34.0	26.5	40.2	41.2	41.7	37.4
.70	4.82	1.42x	8.69	2.45	32.9	34.5	34.5	32.5	45.8	44.8	45.4	36.3
.61	3.19	3.09x	11.37	3.88	28.6(p)	26.9	28.5	21.7	36.5(p)	35.2	38.2	31.4
.45	6.36	21.02x	27.38	5.21Cr.	36.7	30.8	31.0	28.8	33.3	31.3	30.1	20.5
.67	4.95	2.99x	20.34	2.51Cr.	38.5	34.6	36.1	31.4	37.8	36.1	35.7	32.2
.32	5.20	2.05x	17.35	2.34	34.8	32.8	34.1	33.0	45.4	45.2	47.9	34.9
g)	7.19	(g)	(h)	20.43Cr.	43.8	38.2	38.8	39.7	37.7	35.1	36.8	28.1
.80	9.15	1.33x	10.07	7.75Cr.	41.1	32.4	37.9	34.0	26.7	23.7	26.4	21.2
.50	5.21	2.28x	11.27	0.18	36.3	35.7	34.6	28.5	42.0	38.8	39.2	34.6
.87	2.53	10.31x	31.49	4.32	25.4	22.3	24.6	27.7	31.8	32.5	30.2	27.0
.67	3.63	4.16x	15.94	3.56	32.2	29.8	29.0	26.2	39.5	41.0	40.0	35.3
.76	4.50	1.94x	11.83	1.09	33.6	31.1	32.5	27.5	38.4	38.6	38.8	31.1
.67	4.25	5.42x	24.54	4.21	30.8	27.7	28.8	29.2	38.2	39.5	38.2	29.3
.00	4.39	15.59x	24.09	4.13	34.3	30.5	29.8	33.4	37.4	35.3	35.8	32.8
.75	9.19	2.50x	18.54	4.76Cr.	38.5	32.4	31.7	26.4	25.1	25.7	24.5	15.4
.48	5.78	2.53x	18.19	2.89Cr.	33.6	31.9	30.6	34.3	31.5	31.8	33.0	25.2

(h) PLE had working capital deficit of $3,599,000 on Dec. 31, 1949
(j) 1st Preferred 1.02%; 2nd Preferred 1.53%
(k) 1st Preferred 3.19%; 2nd Preferred 0.63%. No allowance made for capitalization of pfd. arrears.
(m) After setting aside $8 million for Maintenance reserves
(n) After tax credit of $2.5 million, probably non-recurring
(p) Nickel Plate & Wheeling combined as of 11/30/49 - Transportation and Maintenance Ratios for years previous to 1949, Nickel Plate alone.

ing about 85% of total domestic ingot capacity, are estimated around $163 million to $164 million for the second quarter. Their best to date was $162,500,000 in the March quarter of 1949. In the first quarter this year they totaled some $146 million.

CONDITIONS IN STEEL COULDN'T BE BETTER

With production at capacity, and profits making new records, logic compels the observation that, except for a general price rise, conditions in steel can hardly be much better than they are today. The natural questions are: How long will present conditions hold? If and when steel demand turns down, how abrupt and severe is the decline likely to be? Looking farther ahead, is the steel industry destined to return to its "prince or pauper" (mostly pauper) characteristics of the 1930's or to something more closely analogous to the generally prosperous 1920's?

As to the first question, there is nothing currently in sight to suggest any appreciable change in conditions for the industry for the foreseeable future. To meet heavy demands for consumer durables and the high levels of construction activity, most steelmakers are booked almost solidly through the third quarter, and some have been accepting orders for later delivery. Many are turning down business for early shipment. Cancelations are a thing unknown. Most important, virtually all steel being shipped apparently is moving into consumption. There doubtless are some additions being made to consumer inventories, but the figure evidently is not high.

RETAIL DEMAND WILL PROVIDE THE ANSWER

Retail demand for automobiles during the summer and fall and the future pace of residential construction will provide most of the answer to the question if steel production is to remain near capacity through 1950. The odds at this distance are that it will not and that the beginnings of a slackening pace are not much more than six months away, if that far. Even in the inflationary economy of today, it seems hardly credible that the public continuously can absorb new vehicles at an annual rate of better than 8 million and new homes at the rate of better than 1 million annually.

At this point, however, it is well to inject the reservation that the foregoing prediction of a late year slackening in steel production must be qualified by the labor outlook. Following the recent signing of the new five-year contract between General Motors and the UAW, there is room for conjecture that CIO-USW may present the steel industry with demands for higher wages this fall. If faced with the possibility of another strike in basic steel, consumers again may elect to do some anticipatory purchasing and support the operating rate longer than actual consumption might warrant.

DEPENDS ON CONSUMERS' ATTITUDES

Aside from this possibility, the course of steel production starting late this year will depend heavily on consumers' attitudes toward the size of their inventories at that time. Last spring, with the consensus favoring the possibility of lower steel prices by the late summer of 1949, many customers embarked on programs of reducing their stocks to a minimum. If inflationary pressures in the economy persist in the months ahead, as they well may, it is questionable that opinion of future steel price trends will be similar. Thus, the next decline in steel demand, when it comes, may well be more orderly than that of the spring in 1949, when order cancelations and requests for delayed deliveries poured into the offices of many steelmakers.

But again a reservation is in order. Today the distant rumblings of possibly another general rise in the price of steel can faintly be heard. If this were to eventuate, the steel price structure could be considered that much more vulnerable when demand eventually turns down. Consumer policy on inventory reduction at that time might take on a much different aspect, and the steel rate be penalized accordingly.

UNCERTAINTY IN OUTLOOK

That there is a liberal measure of uncertainty in the outlook for steel production, when viewed over the span of the next twelve months, as against the next three or four, seems all too apparent. The eventual readjustment when it comes—and steel, like autos, is one of the few industries that have not yet had a real postwar readjustment—need not be unduly prolonged, nor the forerunner of a return to the sad, down-and-up-and-down pattern of the 1930's.

First and foremost is the evidence that in the years ahead the relationship between steel capacity and potential consumption will remain in much better balance than at any time since the 1920's. Although steel-producing capacity today is almost 25% larger than at the end of 1939, the increase has been modest in relation to population or to the capacity of the consuming industries. We have today a steel-producing capacity of only slightly more than 1,300 pounds per capita; in 1939, the figure was 1,250 pounds. Against the 25% rise in steel capacity, the capacity of many important metal-working industries has doubled or trebled since before the war.

Any short- or long-range forecast of steel demand, of course, is a forecast of general business activity, as demand for steel is derived from the demand for automobiles, houses, refrigerators, industrial equipment, tractors, and a host of other products. I for one am unwilling to hazard a prediction of the ultimate end to which the basically inflationary trend of our economy apparently is leading us. Although I am not predicting a "new era" of uninterrupted and ever mounting prosperity, however, it is beyond my limited vision to discern the present or early prospective makings of a general business collapse.

REPLACEMENT DEMANDS ADEQUATE

Conversely, it appears to me that our industrial structure already has been expanded enough so that, together with normal population growth, replacement demands for products and equipment made of steel, or using steel, will be enough to support the steel operating rate, on an average over the next few years, at a level comparing favorably with the 71.6% in the decade of the 1920's. Such a level would hardly mean lush prosperity for the steelmakers at the present relationship between prices and costs, but for the more efficient operators it could provide satisfactory profits.

In the future, as in the past, steelmakers unquestionably will have their ups and downs. At the moment we are at the peak in a prosperity cycle, from which a downturn probably will be in the making soon. In the expected following upturn, the road for the better steel producers should be nowhere nearly so rough nor its twistings and turnings so tortuous as those of the 1930's.

DIVIDEND NOTICES

DEBENTURE: The regular quarterly dividend of $2.00 per share on the Debenture Stock will be paid Aug. 1, 1950, to stockholders of record July 24, 1950.

"A" COMMON and VOTING COMMON: A quarterly dividend of 25 cents per share on the "A" Common and Voting Common Stocks will be paid Aug. 15, 1950, to stockholders of record July 24, 1950.

A. B. Newhall, *Treasurer*

Dennison Manufacturing Co.
Framingham, Mass.

106TH YEAR

MINNEAPOLIS GAS COMPANY

739 Marquette Avenue
Minneapolis 2, Minnesota

Common Stock Dividend

The Board of Directors of Minneapolis Gas Company, at a meeting held on July 13, 1950, declared a dividend of 25c per share payable in cash on August 10, 1950, to common stockholders of record at the close of business July 26, 1950.

H. K. WRENCH, *President*

The Strange Case of Mrs. Berry

STANLEY R. KETCHAM

THE WORK OF INVESTMENT COUNSELORS involves many problems in addition to economic and security analyses. Most of these are human relations problems. The way they are resolved is often as important to an investment counselor and his client as the soundness of his advice.

The example that follows* is a report of an actual situation, one that was studied recently in an undergraduate course in human relations. It illustrates a type of situation that is familiar to investment counselors. It is presented here with my answers to it.

* * *

John Ellis became investment counselor for Mrs. George Berry about two years after the death of her husband. Berry, a successful salesman in Drexel, a medium-size city in New York State, had left his widow an estate of about $100,000 after taxes, consisting of $40,000 in highest-grade bonds and the remainder in second-grade bonds and common stock. Accustomed to discussing financial matters with her husband, Mrs. Berry had continued to take an active part in the investment of her funds, and after his death she had discussed her affairs freely with her daughter Martha's husband, Edward Cunningham.

Ellis and his wife knew the Cunninghams well enough to dine or play bridge with them once or twice a month, and through this friendship Ellis conceived a fairly good picture of Mrs. Cunningham's family. He knew that her father had admittedly come up the hard way. Although after his marriage Mr. Berry's income had always been substantial, they had lived very quietly without servants and entertained seldom. Mrs. Berry did occasionally entertain a small group for bridge in the afternoon. She was very fond of the game and skillful enough at it to become the acknowledged local expert.

Martha and Ed Cunningham often referred to the long engagement of her parents, pointing out that they had believed in caution at every turn. For example, Martha would relate, her mother and father had bought a small house in a good neighborhood at the time of their marriage. They had selected it so carefully that forty years later, with some modernization, it was as suitable and the neighborhood as good as when they had first bought it.

The security of her parents' way of life had made a deep impression on Martha, who had insisted on a long engagement to Ed before their marriage. Unlike her elder sister Ethel, however, Martha had not followed her mother's footsteps. She had studied dramatics and, before her marriage to Cunningham, had taught for a number of years in one of the best-known dramatic schools in the East.

Ethel was much like her mother. She had gone to the same normal school and had taught in the same high school. She had not married and after teaching eight years had become the school's principal. She had always "lived at home," and her skill at bridge was second only to her mother's.

When Ellis first met Martha's parents, he had found Mr. Berry quiet and self-contained and Mrs. Berry a vivacious woman who was quite sure of herself and her opinions.

It did not surprise him, therefore, when Ed brought Mrs. Berry to his office in the city for their first business meeting in the fall of 1946 to have her tell him that she had always been thoroughly familiar with her husband's financial affairs. Their savings, she told him, were the result of budgets that they had worked out carefully together and that had covered business and household expenses.

"Whenever we had accumulated enough money," Mrs. Berry told him, "my husband always discussed potential investments with two of his friends. One is our broker in Drexel, and the other is the president of our largest bank. After getting their opinion, he would bring home the details, and then we would carefully consider the merits of the securities he had found out about. After studying them for a while, maybe two or three months, I guess, we would probably buy some of them." Ed Cunningham added that Mr. and Mrs. Berry had invested a large part of their savings in common stocks, with the result that they had lost substantial amounts of money in 1929. Mrs. Berry interrupted to say, "But we haven't really lost anything because we haven't sold any of these stocks."

After carefully studying Mrs. Berry's investments, Ellis wrote her a long letter in October 1946, characterizing them, and in one of the early paragraphs said:

> Our opinion of this portfolio is necessarily a correlation of our conclusions on three distinct groups of facts: first, we must appraise the current economic situation; second, we must recognize certain basic investment principles which experience has shown are necessary to successful investing over a period of years; and, third, we must understand the requirements of the beneficiary of these funds and the functions which this investment portfolio fulfills. We urge that you consider this general discussion carefully, since it is only on the basis of these conclusions that we can make specific recommendations for the handling of your investments.

Ellis' letter discussed in detail the investment principles developed from a consideration of such matters and applied them to Mrs. Berry's portfolio. At that time, in late 1946, the firm believed that the distribution of Mrs. Berry's investments among the various investment groups was not seriously out of line from an economic point of view. However, the distribution did not seem best suited for her particular requirements, which were expressed in the letter in the following way:

> We understand a relatively high income from these funds is not necessary and the major objective is protection of the principal with only such appreciation possibilities as is consistent with this objective.

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In discussing Mrs. Berry's requirements and their effect on the investment position of her portfolio, Ellis at some length compared the purchase of securities with a decision to go into business. The letter continued:

> Much investment confusion exists because of a lack of clear understanding of investment principles. Many investors, for example, desire to obtain large appreciation and high income from a single security. Modification of these basic objectives can be obtained *within a portfolio* through the ownership of one group of securities for obtaining high income and one group for appreciation, and *controlling* the amount of money invested in each group. Any attempt, however, at combining any two of these objectives in one security practically always results in obtaining a secondary investment that serves none of these purposes well.

The letter then made specific recommendations for the sale and purchase of certain securities.

Six months passed without word from Mrs. Berry. During this time Ed Cunningham had questioned her about the delay, and she stated that she was still "considering." Then in July 1947 she and Cunningham came into Ellis' office for a second conference. At that time they found she had followed none of Ellis' recommendations. A series of conferences followed, in which the three met as often as twice a month. Inasmuch as the trip from Drexel to Ellis' office was 70 miles, Mrs. Berry's interest in these matters seemed to Ellis to be "real," but still no decision was reached.

Finally, on September 1, 1947, almost a year after her original visit, Mrs. Berry signed an agreement for the supervision of her account by the firm for one year and requested that a copy of all letters from the firm be sent to her son-in-law. It was not until much later that Ellis learned that Cunningham had paid the annual fee for this service although his mother-in-law could easily have afforded it.

During the winter and spring of 1948 Ellis conferred with Mrs. Berry frequently and made numerous recommendations to bring her portfolio into line with the investment principles that were the basis of his work. Long experience in managing the portfolios of many clients had shown him the importance of considering investments not only in their intrinsic merits, but also in relation to both the general economic situation and all the other securities owned. Without these considerations he had found that investors often take unknowingly more risks than their basic objectives require.

He was certain that successful investing over a period of years could be accomplished only when the basic principles and technical distinctions, such as those he had frequently discussed with Mrs. Berry, were carefully followed. Time and again he had stressed their importance as fully as he could and in as many different ways as possible, in an attempt to give Mrs. Berry an understanding of them.

Although Ellis had found her intelligent, quick-witted, and comparatively well versed in economic matters, and although his firm felt that he had outstanding skills in dealing with just such a client as Mrs. Berry, he realized that he had not made much progress with her and that she did not understand the basis on which he tried to work. She generally did not desire to make any sales of stock; she wished to sell highest-grade bonds, which Ellis felt to be a necessary protection for the account, and to buy additional stocks with the proceeds. Following a conference she wrote typically:

> I'm afraid you may think me stubborn. I would just like to buy, not sell too much. I will be in the city soon. Hope, though, you will write me at once what to buy with some of the cash I now have at low interest in highest-grade bonds.

Later she wrote:

> I do not wish to sell the two stocks you advise selling. Regardless of your advice I would like to buy a fine stock with some of the highest-grade bonds . . . I hope you will not mind that I wish to hold the stocks.

On August 20, 1948, near the end of the year that Mrs. Berry had her portfolio under the supervision of John Ellis, he wrote to her as follows:

> I know that we have not as yet demonstrated to you clearly that the investment principles which we follow will prove profitable to you over a period of years. These principles have been developed in order to minimize the losses that inevitably occur because of mistakes in human judgment. We realize that, no matter how carefully we study economic conditions and investments, unpredictable events will occur. As a result, certain recommendations may be unprofitable for a period of time. However, it has been the experience of competent investment counsel that through careful supervision unprofitable securities can be avoided and such "mistakes" as do occur will be offset by greater profits elsewhere.
>
> A study of the recommendations which we have given you in the past year will demonstrate the truth of these premises. We recommended sale of 13 of your holdings, and 11 of them are now selling at prices lower than the recommended sale prices. One of the recommended sales increased very substantially in value. Nevertheless, the total sales which at recommended prices were worth $18,961 are now worth $18,763. In other words, if you had sold all the securities we recommended for sale, you would have prevented a loss of $198 in this group of holdings during a year of generally improving business conditions.
>
> The total recommended purchases show even better results, although all recommendations were not profitable. We recommended the purchase of nine new commitments, and six of these already show profits. Two of the remaining recommendations, now selling below the recommended purchase price, were advised for the income fund and have fulfilled well that function of providing a relatively high income. The total recommended purchases, however, which at recommended prices were worth $17,484, are now worth $18,734. This means a profit in this group of recommendations of $1,250.
>
> It may be that because we have been unable to demonstrate to you during the year that our policies were sound we have made fewer recommendations than to our other clients. It would be very helpful, therefore, if sometime when you are in town we could discuss this matter of investment policy in some detail as it applies to your entire portfolio. If we can demonstrate the value of these theories to you, there is no doubt that even better investment results can be obtained during the coming year.

Mrs. Berry left her account with Ellis' firm for only one year and withdrew it in the fall of 1948 without offering any reason for so doing.

In talking together both John and Ed expressed strongly their belief that Mrs. Berry should have competent advice that she would follow. Ed felt that the manner in which John's firm had handled her account so clearly demonstrated the firm's ability that he intended to continue his efforts to convince her that she should resume investment counsel service.

John was convinced that their thinking was so far removed from Mrs. Berry's that, despite Ed's efforts, any change in her attitude was unlikely. Still, he could not see where the differences lay or how he could have handled the situation more effectively.

Apparently all Mrs. Berry wanted was someone who would fill the place in her financial planning that her husband had occupied. Instead, this cautious, well-informed investor got a series of lectures on investment principles which carried an implication of criticism of her judgment and, worse still, of her late husband's judgment.

Mrs. Berry needed investment counsel. That she recognized this need is shown clearly by her frequent trips to Ellis' office to seek his advice and by her specific requests for his suggestions. However, she was too conscious of her own ability, too independent and too deliberate to respond to suggestions to sell stocks she liked when the probable benefit was only a moderate one.

Probably during the early stages of this association the primary duty of Mrs. Berry's adviser was to be her financial "watchdog" when serious trouble was foreseen.

Mr. Ellis was so concerned with the technique of investing and the doctrine of his firm that he ignored the opportunity of winning Mrs. Berry's confidence. His failure was due to his adamant opposition to her views and to his neglect of her desire for an adviser who would show confidence in her. This lady was proud of her and her husband's accomplishments, but Ellis, the perfectionist, would not even favor Mrs. Berry with the courtesy of acknowledging that a difficult task had been done creditably or that her own judgment might be correct some of the time. Ellis could have been Mrs. Berry's friend and trusted mentor; he chose to be her critic.

* * *

Obviously Ellis had to find some way to alter Mrs. Berry's opinions. But a counselor cannot help a client unless he can keep a client, and he cannot keep a client unless his views are generally agreeable to that client. Ellis had a problem; Ellis' problem was himself.

Ellis weighed carefully his knowledge of Mrs. Berry. He decided that her hesitancy in taking action was a reflection of innate cautiousness and that, therefore, he should be helpful in guiding her toward a more conservative investment policy.

Mrs. Berry's predilection for common stocks was set down by Ellis as the major obstacle in his relationship with this client. In view of the vigor of Mrs. Berry's convictions, Ellis decided that he should attack the common stock problem obliquely, avoiding at all costs a flat contradiction of her views.

Ellis listed his acquaintanceship with Mrs. Berry and her late husband, his friendship with Cunningham and Martha, and his mutual interests with the Berry family in investments and bridge. He also counted on Mrs. Berry's understanding of financial affairs as advantages in their association.

The clear-cut field for agreement between Ellis and Mrs. Berry was the fine job that she and Mr. Berry had done in saving their money and building an investment portfolio that the record proved to have been well constructed. As one of his first acts Ellis praised Mrs. Berry for what had been done, for her serious interest in investments, and for her willingness to devote so much thought to them. He made a point of expressing these sentiments in various ways from time to time.

Inasmuch as Ellis' analysis indicated that no drastic action was required, he decided to limit his recommendations. In his initial report he made no recommendations at all for immediate changes, although he did mention several issues as ones that he thought Mrs. Berry should consider as offering the best opportunity for improving her investment position through later exchange for other issues. Ellis knew that Mrs. Berry would not act quickly in any event. Mrs. Berry was favorably impressed by Ellis' report and said to Ellis, "I was so afraid that you would want me to get rid of some of my good stocks right away."

In their discussions Ellis concentrated on gradually bringing out the unfavorable aspects of the issues he considered unattractive, while emphasizing the good points of the bonds and the stocks he approved and praising the Berrys' acumen in acquiring the substantial holdings of high-grade bonds. Mrs. Berry having made it clear that she wanted to increase, rather than reduce, the portion of her fund invested in common stocks, Ellis' early efforts to lessen the risks in the fund were directed primarily toward improving the quality of the stocks.

When Mrs. Berry put Ellis "on the spot" by demanding that he suggest a high-grade common stock substitute for some of the bonds, he apparently thought: "What if Mrs. Berry does lean a bit too far in the direction of common stocks? She wants only the best, and she never makes a move until after months of deliberation."

In his reply to Mrs. Berry, Ellis wrote: "We believe that it would be to your best interest to defer this action, which after all seems to be somewhat contrary to the policies that have made your investment program so successful. In accordance with your request, however, we are pleased to submit for your consideration XYZ common." He described the stock of a strong fire insurance company, which invests largely in bonds. Ellis knew that no great harm could result from this minor alteration in the bond-stock ratio of her portfolio.

Although Ellis recognized fully the complications that sometimes develop when family intimacy is tied in with a business relationship, he considered it fortunate that he and Mrs. Ellis were already a part of the Berry family's social group. The common interest in bridge of Mr. and Mrs. Ellis and all the Berry family were easily and pleasantly broadened by including Mrs. Berry and Ethel occasionally in one of the evenings with Cunningham and Martha. Mrs. Berry enjoyed these new opportunities to be with her family and son-in-law, whom she liked and respected. She often chuckled to herself as she demonstrated to her investment adviser her superior skill in bridge. These evenings were congenial affairs for all.

Apart from strengthening his relationship with Mrs. Berry and bringing a new facet of interest to the Ellis' social life, the bridge evenings resulted naturally in friendship between Ethel and Mr. and Mrs. Ellis. In Ethel, Ellis saw the possibility of another ally. Her closeness to her mother suggested that Mrs. Berry respected her opinions. Ellis decided to avail himself of the simple means open to him of knowing Ethel better and trying to gain her endorsement of his views.

During the second of the bridge evenings Ellis asked Ethel and Mrs. Berry if Ethel could not be persuaded to accompany Mrs. Berry on her next visit to Ellis' office. Both were gratified, and Ethel accepted. Before long, Ethel's presence at the meetings became routine. Mrs. Berry was delighted with Ethel's growing interest in investments.

Despite the similarities of character she shared with Mrs. Berry, Ethel's youth and inexperience in financial affairs made her more receptive to Ellis' views. These she discussed at home with Mrs. Berry, and often it was Ethel's stressing of Ellis' opinions that tipped the balance in their favor.

Mrs. Berry came to rely on Ellis more and more. By slow steps he guided her (and Ethel) in the direction he considered best. She responded to his friendly consideration, and her good judgment responded to his investment ability. Ellis was not greatly surprised when, toward the end of the year, Mrs. Berry said to him, "You know, I've been thinking that perhaps I have too much money in common stocks." When Mrs. Berry forwarded her check for the second year's service, she wrote to Ellis' firm, "I wouldn't know what to do without your assistance." All of which merely proves that it takes more than knowledge of facts and conditions to make a successful investment counsel.

* * *

1818

February . . . New York Legislative Committee on Currency reported that Banks resorted to "a variety of schemes to get their notes into circulation." Some issued "a species of paper called facility notes, purporting to be payable in either money, country produce, or anything else that has body or shape, and thereby rendering their name appropriate only by facilitating the ruin of those who are so unfortunate as to hold them."

November . . . "The Bank of Kentucky stopped payments on the 20th and resumed five days later."

November . . . "Mr. Spencer of New York offered for consideration the resolution that a committee be appointed to inspect the books and examine into the proceedings of the Bank of the United States and to report whether the provisions of its charter have been violated or not." November 30 committee appointed.

December . . . Some banks reduced dividends.

"Public rumor says that some of the branches of the Bank of the United States are severely pushed to meet their engagements."

Private bankers in New York "imposed their worthless rags upon the community as a part of the currency."

Suffolk Bank chartered in Massachusetts.

Cotton sold at 32c per pound.

N. Y. Restraining Act: "No person or association of persons except those authorized by law should keep any office for the purpose of receiving deposits or discounting notes or bills, or for issuing any evidence of debt to be loaned or put in circulation as money." Repealed in 1837.

Slave prices $800.

Panic in Paris spread to Vienna, Amsterdam, Hamburg.

Began in prosperity, ended in "bankruptcy, terror, confusion, and dismay . . . Fall in prices—sudden cessation of business."

New Banks loaned on farms or almost anything at usurious rates; land became valueless. . . . The effects of paper money were severe, in the the richest portions both of Kentucky and Pennsylvania. . . . Many were turned out of their lands and took shelter in the woods of Ohio: and many, pressed down by misfortune, died of a broken heart. (Hildreth)

Reports from Affiliated Societies

The Security Analysts of San Francisco

The roster of the San Francisco Society is now over 100, reflecting a steady admission to membership of qualified analysts from the Bay area.

Special summer outings featured by the San Francisco Society included a one-day field trip by train to the new generating plants at Moss Landing on Monterey Bay on July 28, when the membership were guests of the Pacific Gas & Electric Company and a general luncheon meeting in July with Clarence Francis, chairman of the board of General Foods Corporation, followed by an afternoon trip to the new General Foods plant at San Leandro. Plans have been made for meetings in the coming months with guest speakers representing, among other industries, chemicals, metals, containers, paper and lumber, farm equipment, drugs, and utilities.

General luncheon meetings since the first of the year have been held with the following:

Donald J. Russell, vice-president, Southern Pacific Co.
Lingan A. Warren, president, Safeway Stores.
George L. Harding, treasurer, Pacific Telephone & Telegraph Co.
Charles S. Jones, president, Richfield Oil Corp.

The large attendance at these meetings has reflected not only a wide investment interest in the respective companies but also the quality of the executives invited to speak to the Society. Each session developed considerable corporate information of practical value to our membership.

Forum meetings have included the following guest speakers:

Robert A. Hornby, executive vice-president, Pacific Lighting Corp.
Richard L. Rosenthal, president, Citizens Utilities Co.
Dr. Titus L. Podea, Econometric Institute (N. Y.)
Charles S. Eaton, president, Eaton & Howard (Boston)
S. Waldo Coleman, president, Commonwealth Investment Co. (San Francisco)
Emery N. Cleaves, assistant to president, Celanese Corp. of America
H. L. Hoffman, president, Hoffman Radio Corp.
H. Taylor Peery, vice-president, Bank of America, N.T. & S.A.

Our forum meeting program has covered a variety of subjects. Rate problems and competitive fuel conditions in the West Coast natural gas situation were given particular attention in a "return engagement" with Mr. Hornby. Equity capital financing and utility rate making were stressed by Mr. Rosenthal, well known to analysts as a dynamic young executive in the industry.

The general economic outlook was discussed with Dr. Podea as a follow-up to a group forum on market forecasting earlier in the year. The meetings with Mr. Eaton and Mr. Coleman dealt primarily with the investment policies and growth aspects of mutual funds. The forums with Messrs. Cleaves and Hoffman provided an up-to-date review of the synthetic fiber and television industries.

The Society continues to emphasize the value of forum meetings of reasonable size in which members can discuss subjects of mutual interest and express individual viewpoints. Group forums of this type included the meeting

Luncheon Forum Talks

THE ANALYSTS' CLUB OF DETROIT

SINCE NOVEMBER 16, 1949

Date	*Speaker*	*Topic*
Nov 16	E. E. Pollock Vice-president, Wyatt Co.	Current Developments in Pension Plans
Dec 19	Lyle Harvey President, Affiliated Gas Equipment Co., Cleveland, Ohio	The Distribution of Natural Gas
Jan 18	Jim Waterman Member of the club	Utility Rates
Feb 15	H. G. Ward President, Brown-Ward Co.	The Present Critical Situation in Coal Supplies
Mar 15	Milt Drake Member of the club	Annual Reports of Banks
Apr 19	Bernard V. Preston Dun & Bradstreet	Problems of Credit Rating Corporations
May 4	None (annual meeting)	General discussion of the business outlook
May 17	Lewis H. Schimmel Director, Municipal Advisory Council of Michigan	Current Problems in Financing Municipal Improvements in Michigan

with Mr. Peery on bank stocks, assisted by Willsie Wood and Walter Gorsy, and a session led by Eugene Gray on Canadian oil and natural gas developments.

The Society's annual report for 1949, released in March, contained a resume of last year's activities along with the revised Constitution adopted in December.

San Francisco was represented at the Federation Annual Convention in New York by a delegation of Bay area analysts that included Thomas J. Tasso and Richard W. Lambourne, Philip J. Fitzgerald who spoke at the annual stock market forum, and Edward A. White. A full report on the Federation PROCEEDINGS was presented by these members at a special night forum meeting of the Society in April.

Meetings in San Francisco with officials of the National Federation have been planned for this year, and we renew our standing invitation to members of the other Societies.

RICHARD W. LAMBOURNE, *President*

St. Louis Society of Financial Analysts

Election of officers for the St. Louis Society of Financial Analysts took place recently. Officers elected to serve for the fiscal year ending July 1, 1951 are:

President:	Frank X. Keaney
Vice-president:	Carl L. A. Beckers
Secretary and treasurer:	Haworth Hoch

Providence Society of Financial Analysts

Most recent of the analysts societies to apply for membership in the National Federation of Financial Analysts Societies is the Providence Society of Financial Analysts. The Providence Society voted in favor of this step on June 12, 1950.

The officers of the Society are:

President: Robert H. Goff, Automobile Insurance Co.
Vice-President: Kenneth N. Hill, Providence National Bank.
Treasurer: Gilman Angier, Industrial Trust Co.
Secretary: Herbert C. Wells, Jr., Rhode Island Hospital Trust Co.
Chairman program committee: Harry Bruns, Industrial Trust Co.

The Analysts' Club of Detroit

The Analysts' Club of Detroit has elected its slate of officers to serve for the current year. The new officers are:

President:	Herbert D. Hunter
Vice-president:	T. Norris Hitchman
Secretary and treasurer:	Charles J. Collins

Meetings held by the Detroit club since last November were addressed by executives of corporations in a variety of fields. A list of the speakers and their subjects appears on the preceding page.

RAYONIER
INCORPORATED
PRODUCER OF HIGHLY PURIFIED WOOD CELLULOSE

SPECIAL and REGULAR DIVIDEND

The Board of Directors has declared a special dividend of twenty-five cents (25¢) per share on the Common Stock, and also the regular quarterly dividend of fifty cents (50¢) per share on the Common Stock, each payable August 15, 1950 to stockholders of record at the close of business July 28, 1950.

EDWARD BARTSCH
President

June 20, 1950

Avisco®

AMERICAN VISCOSE CORPORATION

Dividend Notice

Directors of the American Viscose Corporation at their regular meeting on June 29, 1950, declared dividends of one dollar and twenty-five cents ($1.25) per share on the five percent (5%) cumulative preferred stock and seventy-five cents (75¢) per share on the common stock, both payable on Aug. 1, 1950, to shareholders of record at the close of business on July 20, 1950.

WILLIAM H. BROWN
Secretary

COLUMBIA GAS SYSTEM

THE COLUMBIA GAS SYSTEM, INC.

The Board of Directors has declared this day the following quarterly dividend:

Common Stock
No. 63, 18¾¢ per share
payable on August 15, 1950, to holders of record at close of business July 20, 1950.

DALE PARKER
June 20, 1950 *Secretary*

NATIONAL DISTILLERS
PRODUCTS CORPORATION

NATIONAL DISTILLERS

DIVIDEND NOTICE

The Board of Directors has declared a quarterly dividend of 50c per share on the outstanding Common Stock, payable on August 1, 1950, to stockholders of record on July 11, 1950. The transfer books will not close.

THOS. A. CLARK
June 22, 1950. Treasurer

Book Reviews

In this department are summarized books, articles, and documents of outstanding economic or financial interest. A list of articles, which may be useful to the security analyst, follows the reviews.

Helen Slade is the author of the book reviews. She will cooperate with members of the Society desiring source material for JOURNAL *articles and for research projects and studies.*

NEW FACTS ON BUSINESS CYCLES

Arthur F. Burns
30th Annual Report, National Bureau of Economic Research, 93 pp

In the 30th Annual Report of the National Bureau of Economic Research, Arthur F. Burns describes new facts developed by years of investigation. These are laid before persons who need to appraise future business conditions. Data based on experiences gathered before World War II are set forth, mainly because that period is filled with facts "to which students turn when they seek to form a considered judgment of how our business economy functions under peacetime conditions." It is from accurate understanding of what caused former turns and changes that we are able to appraise the significance of present signals.

The National Bureau has analyzed hundreds of time series and found that all but 3% show cyclical movements. Exceptions include railroad transportation traffic and gold flows between the United States and Great Britain. Some of the material in Mr. Burns's treatise comes, he says, from researches conducted by Geoffrey Moore (Statistical Indicators of Cyclical Revivals and Recessions) and Thor Hultgren (Cyclical Diversities in the Fortunes of Industrial Corporations). Both of these papers recently published by the National Bureau are worthy of study and contemplation.

After examining 400 series Mr. Moore concludes that, although their "peaks and troughs clustered around peaks and troughs in the aggregate," individual clusters were spread. Charts and tables in this pamphlet deserve a place on the shelf of every research department. Thus, from considerations of the many Bureau studies as well as from his own observations, Mr. Burns explains the behavior of economic series. They do not move in unison, for there are wide dispersals at turning points. Expansions and contractions are diffused at both the beginnings and ends of moves. Near the peak or trough one finds cross currents. When such countercurrents are discovered, a turning point may be in the making, and it is from revelations of beneath-the-surface activity, contrary to the general trend, that one becomes aware of the start of an opposite movement. This transformation beneath the surface indicates the existence of an "unseen cycle" which should be considered as well as the "seen" cycle. This unseen cycle "throws its shadow on the economy" and is an early indicator. It is at the beginning of trends that these countermovements bring about spottiness gradually altering the established direction. Detection of "unseen cycles" becomes simpler after thoughtful scrutiny of the text charts and tables in Arthur Burns's article.

At times economic activity may be "jarred out" of routine by spending. Funds poured out for construction seem to be a most important stimulator of business activity. Different industries affect the economy in unlike fashion, but none to so large an extent as construction. One item of note is that stock prices move early, both in revivals and in recessions.

This short report is an assignment of reading to be taken seriously.

THE INSIDE STORY OF THE STOCK EXCHANGE

Humphrey B. Neill
B. C. Forbes & Sons, 345 pp, $6

Collecting material to cover the story of the Stock Exchange from its beginnings is a lifetime work; yet so comprehensive a study is set forth by Humphrey Neill. The narrative begins with colonial trading and continues to the present time, and the long path from the selling of "governments" by J. Pintard in 1792 to the flotations of huge offerings by five Standard Oil companies in 1949 is full of drama and excitement. Through the entire book one is made aware that it is by the functions of the stock exchanges that enterprises may be organized and money converted into wealth. Not only does the author unfold the history of the Stock Exchange and its leading characters, but its economic functions and mechanical machinery are defined.

One is told of how venture capital employed to advance industry did its share toward building America and that it was the three "great arms of business": money (including credit), transportation, and communication, "which after 1865 were beckoning to worker and capitalist alike." New opopportunities came into being, and with them new kinds of financing and men who were not afraid. Most of the people who created situations or laid the foundations of large corporations are mentioned, as are most of the stock market dreamers. Some succeeded; others failed. William Durant appears to be the chosen one to exemplify his era.

There are stories of manipulations, corners, and pools, and beginning and growth of the railroads and other industries. It is not a long book; yet it covers a long period and has a wide scope; so naturally some details must be neglected. But it contains many facts and dates of reports, commissions, openings of exchanges, and much the market analyst should know.

STOCKHOLDER RELATIONS

Studies in Business Policy, no. 43,
Conference Board, 58 pp

The Conference Board with its customary care and elegant handling tells the story of a new and rapidly advancing activity—that of stockholder relations. Henceforth facts and figures pertaining to corporate earnings and headway will be communicated to the shareholder. Owners of parts of companies, whether the portion be large or small, are to be made aware of the state of its business. To do this the profession of "stockholder relation counselor" has come into being. Most great corporations have public relations departments. Some knowing full well that "security rests with its stockholders" do the wooing of stockholders in departments under their own roofs; others engage the services of outside counsel for this function.

Techniques employed by 217 corporations show that 55.8% send letters of welcome to new shareholders; 78.8% acknowledge suggestions. Then there are annual reports, stockholders' newspapers or bulletins, letters from the president, and even appeals to promote the product. Management which was formerly criticized for its failure to "do more for its shareholders" now goes beyond buttering of their bread with dividends.

In the Conference Board's report on this modern movement are several case studies valuable to prospective counselors, as well as full lists of "Do's" and "Don't's." One sees how contact is maintained with the financial community. "Members of the important brokerage and financial houses and insurance companies are often taken on visits to the company's plants and properties." Speculative activity is no longer conducted on guesswork or executed in secret. The day of ministering to the small investor has come. Progress is a wonderful thing!

THE ABC OF THE FEDERAL RESERVE SYSTEM

Edwin Walter Kemmerer and
Donald L. Kemmerer
Harper & Brothers, 229 pp, $3.50

The history and purpose of the Nation's banking structure are set forth in the substantially redone edition of the ABC of the Federal Reserve System. The purpose of the organization and the manner in which it has expanded and then become altered in design are related. The readers are told how Keynesian theories influenced important policy making, for there was a period when the appeal of full employment, plus a high national income to achieve employment was intense.

To Keynesians the manner of achieving employment should originate through a high rate of capital formation. They believe income ought to be spent for consumer goods or for "investment in capital goods." It is only abundant funds that can avert depressions, and the means of obtaining these funds makes little difference. The object is merely to circulate money. This explains adoration of "boondoggling" and low interest rates. The Government is to set interest rates at the right point to keep the economy on an even keel. They must increase lending for capital formation, by "handouts" if necessary, in order to stimulate spending. The chapter on the Federal Reserve System under the New Deal is beautifully presented and highly enlightening, especially to persons not entirely clear on the importance of a sound money policy, nor on just what can happen should Keynesian philosophy continue to infiltrate the thinking of our political leaders.

World War II showed that the Board was no longer an institution formulating major financial policies. Although they could advise the real direction came from the Treasury. This domination is likely to continue. The Federal Reserve will find difficulty in curbing credit expansion, but foreign currencies are in greater disorder than our own, thus lessening the possibility of a flight of our capital to Europe.

Three questions concern citizens: "Is the price level rising or falling? Is the country tending toward a depression or a boom? Is there too much control in the hands of big business or of Government?" These queries are followed by a list of Government and private publications where the answers may be found. Donald Kemmerer hopes this book will enable readers to "speak and vote intelligently on issues involving banking." He has performed a great service.

BUSINESS CYCLES, SECOND EDITION

by James Arthur Estey
Prentice-Hall, 527 pp, $6

This book in its first section describes the business cycle and explains what it is and what business can expect during fluctuations. The second part sets forth theories concerning the cause of cyclical disturbances. Controls are the subject of part three.

Likeness and dissimilarities are revealed. Evidences are given of the international cyclical relations. The author points out that the "crises of 1815, 1825, and 1837 were common to England and the United States." The panic of 1847 affected the United States, Great Britain, and France, as did that of 1857, but in 1857 Germany also felt the slump. In 1873 Austria was added to the list of countries suffering from bad business, as was also true in 1882. All later recessions although manifesting difference in behavior in different nations, were largely international.

There are excellent explanations of different theories with an entire chapter on those of Keynes. From the chapter on psychological causes and the changes in confidence being contributory to the operations of real clauses one finds thought-provoking problems.

It is asked whether or not stabilization of cyclical processes is worth attempting. Mr. Keynes's answer is presented. Mr. Estey ends by saying: "We must be sure that fear of overinvestment does not lead to restrictions on expansion in a society in which underinvestment is the real evil."

This is a book that must be given consideration, even though one may be in complete disagreement with some of the dominant ideas. In many observations it is in accord with the teaching now popular in some of our schools. Although it deviates from what many have come to consider economic truths, it is a book that will add to one's knowledge and give data to strengthen one's opinions or prejudices.

WALKER'S MANUAL OF PACIFIC COAST SECURITIES

Walker's Manual, Inc., San Francisco,
1,000 pp, $25

Walker's Manual of Pacific Coast Securities in its 1950 edition gives full coverage of data concerning western corporations. These unique "state-company" reports reflect the efforts of Lewis B. Reynolds, publisher and president of the "Walker's Manual, Inc.," for the past fifteen years.

A vast fund of data concerning corporations, some of which is listed nowhere else, makes this handbook of unusual significance. It is probably the only compilation of regional securities to be found and, as such, has served investors since 1898.

Information concerning companies is collected by means of questionnaires sent to corporation officers and by special research. Reviewed together these evidences of corporate values bring to the analyst facts and figures on which he may profitably reflect.

Recent Books, Documents, and Magazine Articles of Financial Interest*

Monetary and Fiscal Subjects

European Unification and the Dollar Problem, *Quarterly Journal of Economics,* May 1950.
Ownership of Demand Deposits, *Federal Reserve Bulletin,* May 1950.
Changes in Banks and Branches, *Federal Reserve Bank of San Francisco,* Apr 1950.
The Law and Exchange Control (Great Britain), *The Director* (London).
Should the United States Return to a Full Gold Standard?, *Current Economic Comment,* Feb 1950.
A Survey of Monetary Affairs for 1949, *Midland Bank Review* (London), May 1950.
Industrial Differences in Large Corporation Financing in 1949, *Federal Reserve Bulletin,* June 1950.
Financing Problems in the Advancement of Underdeveloped Countries, *Columbia Journal of International Affairs,* spring 1950.
Money Can Easily Get Out of Hand, *Federal Reserve Bank of Philadelphia Business Review,* F-May 1950.
Balance Sheet of the World Bank, *U. N. World,* Apr 1950.
Regulation of Airline Securities, *Harvard Business Review,* May 1950.
Insurance in the United States, *Spectator Property Insurance Review,* Apr 1950.
Devaluation and Canada's Trade, *Canadian Banker,* winter 1950.
Bank Holding Bill, Hearings U. S. Senate Committee on Banking, 81 Congr ad sess.
Who Holds Gilt-Edged British Government Securities?, *Economist* (London), Apr 8, 1950.
Foreign Dollar Bonds, White Weld & Co., 1950.
What Cheaper Gold in France Means, *Statist* (London), Apr 1, 1950.
World Currency and the Purchase of Raw Materials, *Purchasing Journal,* Apr 1, 1950.
The Earnings Outlook for Commercial Banks, *Commercial & Financial Chronicle,* Apr 6, 1950.
Lord Keynes and the Financial Community, *Empire Trust Letter,* Jan 1950.

Economics and Miscellaneous

Yearbook of Food and Agricultural Statistics, 1949, Columbia University Press, 314 pp, $3.50.
Controlling Resource Flows in Wartime, *American Economic Review,* June 1940.
Prospects for Long-Term Foreign Investment, *Harvard Business Review,* July 1950.
Business Needs for Venture Capital, *Harvard Business Review,* July 1950.
Business . . . Big and Small . . . Built America, Statements by officials of United States Steel before the Subcommittee on the Study of Monopoly Power of the House Committee on the Judiciary, U. S. Steel Corp.
What an Hour's Work Would Buy, 1914-1948, National Industrial Conference Board.
Review of International Commodity Problems, 1949, United Nations, Lake Success, Feb 1950.
European Steel Trends in the Setting of the World Market, United Nations, Columbia University.
Relative Prices of Exports and Imports of Underdeveloped Countries, United Nations, Columbia University.
Handbook on Pensions, National Industrial Conference Board.
The Pension Idea, Foundation for Economic Education.
Pension Fund Investment, Baker, Weeks & Harden.
Jobs and the Man, *American Affairs,* July 1950.
Measuring Business Cycles, *Quarterly Journal of Economics.*
The Middle East Economy in 1949, *Middle East Journal,* Apr 1950.
Economic Commission for Europe, *Economist,* Apr 29, 1950.
The Right of State Existence in International Law, *Southwestern Social Science Quarterly,* Mar 1950.
Economic and Social Council: The results of the tenth Session, Lake Success, *U. N. Bulletin,* Apr 1, 1950.
The 1950 Census of Population, *Metropolitan Life Insurance Company Statistical Bulletin,* Feb 1950.
Building New Executives, *Conference Board Management Record,* Apr 1950.
Casualty Insurance in the United States, *Spectator Property Insurance Review,* Apr 1950.
LIFO "Dollar Value" Inventory, *Taxes,* May 1950.
A Policy for Asia, *Economist* (London), Apr 15, 1950.
Chile's Economic Elements Today Experience Varying Impacts, *Foreign Commerce Weekly,* Apr 10, 1950.
Cost Accounting for Motor Freight Lines, *Accounting Review,* Apr 1950.
National Income Slightly Off, *Western Advertising,* Apr 1950.
Business Conditions and Outlook (N. Y. State 1949-1950), *New York State Commerce Review,* Feb 1950.
Investments and Economic Development, *World Trade,* Mar 1950.
Theories of Welfare Economics, *Journal of Political Economy,* Apr 1950.
The Problem of Price Supports, *Guaranty Survey,* Mar 1950.

Taxes

Inequalities in Local Taxation and Assessment Methods Need Prompt Attention, *American City,* Apr 1950.
Tax Exempt Property, *Tax Digest,* Feb 1950.
Declines in '49 State Tax Yields Mark End of Postwar Boom, *Tax Administrators News,* Mar 1950.
Accounting Theory and Taxable Income, May 1950.
Initial Allowances (treatment of taxation in accounts), *Accountant,* Apr 8, 1950.
Leased Machinery in Massachusetts: A General Property Tax Exemption Problem, *Boston Law Review,* Apr 1950.
Tax Valuation of Minnesota from Iron Ore, *Minnesota Law Review,* Apr 1950.

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Analysis of Motor-Fuel Usage in Calendar Year 1948, *Tax Economic Bulletin,* Jan 1950.
A River in Harness (hydroelectric power near Quebec), *Canadian Geographical Journal,* May 1950.
Iron and Steel Industrial Progress in California, *California,* Mar 1950.
Production of Timber in Finland, *Foreign Trade,* Apr 22, 1950.
Rush for New Houses Sends Lumber Soaring, *U. S. News,* May 26, 1950.
Report on the Textile Industry, *Monetary Times* (Canada), Apr 1950.
The Miracle of Turtle Creek—the Modern Air Brake, *Trains,* May 1950.
Cotton's Future, *Egyptian Cotton Gazette,* Jan 1950.
The Iowa Drug and Cosmetic Act, *Iowa Law Review,* winter 1950.
The Future of World Oil, *Great Britain and the East Omnibus,* Mar 1950.
Sugar down the Ages, *Sugar,* May 1950.
Economics of Diesel-Electric Multiple-Unit trains, *Railway Age,* Apr 22 1950.
Privately Built Apartment Buildings, *Appraisal Journal,* Apr 1950.
Impact of War: a Rush to Buy, *U. S. News,* July 14, 1950.
The Atom Bomb: Where We Stand, *Business Week,* July 8, 1950.
Big Business and Small Business, *Harvard Business Review,* July 1950.
Financial Analysis of Thirty Oil Companies for 1949, Joseph Pogue, Chase National Bank, July 1950.
Mobilizing for Atomic War, Conference Board Business Policy no. 46.

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*All articles and documents listed in this section may be found in the economics division, room 228, of the New York Public Library.

Admissions to NYSSA Membership

January 26 to May 22, 1950

ALBRECHT, George H., Chase National Bank, 18 Pine St., New York

AMBS, Albert W., National City Bank of N. Y., 55 Wall St., New York

ANDERSON, Frederick W., Chemical Bank & Trust Co., 165 Broadway, New York

BANNARD, William N. III, A. C. Allyn & Co., 40 Wall St., New York

BERWALD, Otto A., Grady, Berwald & Co., 30 Pine St., New York

BINNS, Joseph M., Joseph M. Binns, 344 W. 87 St., New York

BREEN, James E., Halsey, Stuart & Co., 35 Wall St., New York

BRYANT, Frank, 27 W. 44 St., New York

BUELL, Kennedy, Chase National Bank, 18 Pine St., New York

COLT, Charles C., Ebasco Services, 2 Rector St., New York

COURTNEY, Harry S., Peter P. McDermott & Co., 44 Wall St., New York

COWIN, Daniel, Hettleman & Co., 1 Wall St., New York

CUTTING, Robert Fulton II, Robert Winthrop & Co., 20 Exchange Pl., New York

DAVISON, Daniel F., Hayden, Stone & Co., 25 Broad St., New York

EINHORN, Barnard, Securities & Exchange Commission, 425 Second St. N. W., Washington, D. C.

FREEMAN, George D., E. F. Hutton & Co., 61 Broadway, New York

FRIEDMAN, Alan J., Dreyfus & Co., 50 Broadway, New York

GEORGE, Roland J., Lionel D. Edie & Co., 20 Exchange Pl., New York

GEYER, George, Geyer & Co., 63 Wall St., New York

GORDON, Howard L. H., J. Henry Schroeder Banking Corp., 57 Broadway, New York

HACKETT, Paul C., Fiduciary Management, 40 Wall St., New York

JACKSON, Jay W., Edward A. Purcell & Co., 50 Broadway, New York

JONES, Alfred Winslow, A. W. Jones & Associates, 70 Wall St., New York

KALZYNSKI, Daniel F., Francis I. duPont & Co., 1 Wall St., New York

KUBA, Benjamin, Fitch Investors Service, 120 Wall St., New York

LAWRENCE, Frank Vinton Jr., Scudder, Stevens & Clark, 1 Wall St., New York

LEEDS, Milton, Pershing & Co., 120 Broadway, New York

MAIJGREN, Henry T., University of Rochester, 15 Prince St., Rochester, N. Y.

MAWDSLEY, Lorrin C., D'Assern & Co., 20 Pine St., New York

MAXWELL, C. W., Halsey, Stuart & Co., 35 Wall St., New York

MINER, Donald D., Chemical Bank & Trust Co., 165 Broadway, New York New York

MORSE, Alexander R., Gruntal & Co., 25 Broad St., New York

MULCAHY, Joseph J., Filor, Bullard & Smyth, 39 Broadway, New York

NAYLOR, May A., Pennsylvania Co. for Banking & Trusts, 15 & Chestnut Sts., Philadelphia

NORRIS, Thomas, Merrill Lynch, Pierce, Fenner & Beane 70 Pine St., New York

NYE, Joseph S., Freeman & Co., 61 Broadway, New York

OCHS, Samuel, Ungerleider & Co., 41 Broad St., New York

O'NEILL, Grover Jr., Fahnestock & Co., 65 Broadway, New York

PEARL, William A., Wm. A. Pearl & Associates, 52 Broadway, New York

PEISER, Donald E., Merrill Lynch, Pierce, Fenner & Beane, 70 Pine St., New York

PENICK, J. Dabney, A. M. Kidder & Co., 1 Wall St., New York

PLATT, Lawrence T., Dick & Merle-Smith, 30 Pine St., New York

RHODES, William D., Lionel D. Edie & Co., 20 Exchange Pl., New York

RICHARDSON, Thomas F., Stamford Trust Co., 300 Main St., Stamford, Conn.

RIDDELL, John G., G. H. Walker & Co., 1 Wall St., New York

RIPPEL, Julius A., Julius A. Rippel, 744 Broad St., New York

RODABAUGH, John G., Fiduciary Counsel, 40 Wall St., New York

SAMSON, Hugh, L. F. Rothschild & Co., 120 Broadway, New York

SANFORD, Stephen J., Amott, Baker & Co., 150 Broadway, New York

SEARING, Arthur F., Drexel & Co., 14 Wall St., New York

SIRTOLI, Vincent E., Dean Witter & Co., 14 Wall St., New York

SOPER, Walter V., Goldman, Sachs & Co., 30 Pine St., New York

SYKES, Howard Calvin Jr., Bank of N. Y. & Fifth Ave. Bank, 48 Wall St., New York

VALENTINE, Stephen Jr., Guaranty Trust Co. of N. Y., 140 Broadway, New York

VLAUN, Lawrence S., Harris, Upham & Co., 14 Wall St., New York

WALKER, James H., Bethlehem Steel Co., 701 E. Third St., Bethlehem, Pa.

WEBB, (Miss) Willie E., Belleair Securities Corp., 44 Wall St., New York

WILSON, Robert J. M., Union Service Corp., 65 Broadway, New York

WINFIELD, Donald J., Scudder, Stevens & Clark, 1 Wall St., New York

WRENN, Mary Anne, Merrill Lynch, Pierce, Fenner & Beane, 70 Pine St., New York

ZABRISKIE, William I., Mallory, Adee & Co., 120 Broadway, New York

ZWANZIG, Otto E., American Gas Association, 420 Lexington Ave., New York

Luncheon Forum Talks

NEW YORK SOCIETY OF SECURITY ANALYSTS

SINCE APRIL 5, 1950

Date	*Speaker*	*Topic*
Apr 10	William V. Packard News market editor *Iron Age*	Sales Prospects for Steel in 1950
Apr 11	Carlton Putnam Chairman of air lines	Chicago & Southern Air Lines
Apr 12	James F. Oates, Jr. Chairman of company	Peoples Gas Light & Coke Co.
Apr 14	F. V. Geier President, Cincinnati Milling Machine Co.	Outlook for the Machine Tool Industry
Apr 17	Don Knowlton Partner, Hill & Knowlton	What Is Wrong with Financial Reporting?
Apr 18	George H. Coppers President of company	National Biscuit Co.
Apr 19	Justin R. Whiting President of company	Consumers Power Co.
Apr 20	Howard Vultee Vice-president, Marine Midland Trust Co. Patrick J. James Investment trust officer, Chase National Bank Edward F. Stauderman Assistant vice-president, Bank of Manhattan	A Discussion of the New York State Prudent Man Bill and Pension Funds
Apr 21	A. R. Seder Vice-president of railroad	Chicago & Northwestern R.R.
Apr 24	Leonard Goldenson President of company	United Paramount Theaters
Apr 25	H. L. Hoffman President of corporation	Hoffman Radio Corp.
Apr 26	J. E. Corette, Jr. Vice-president of company	Montana Power Co.
Apr 27	W. L. Sitle Vice-president of company	Bucyrus-Erie Co.
May 2	H. C. Ramsey President of corporation	Worthington Pump & Machinery Corp.
May 3	R. M. Watt President of company	Kentucky Utilities Co.
May 9	W. H. Clifford Vice-president of corporation	Kimberly Clark Corp.
May 10	W. G. Marbury President of corporation	Mississippi River Fuel Corp.
May 15	W. R. Scott, III Secretary and treasurer of company	Scott Paper Company
May 17	J. S. Osborne President of corporation	Central and South West Corp.
May 18	I. S. V. Patcevitch Chairman of company	Conde Naste Publications
May 19	R. H. Barnard President of company	Glass Fibers
May 22	L. F. Ormond, V Vice-president of railroad	Atlantic Coast Line R.R.
May 24	J. M. Bell, Jr. President of corporation	N. Y. State Electric & Gas Corp.
May 29	E. J. Hanley Executive vice-president of corporation	Allegheny Ludlum Steel Corp.
May 31	William B. Brown, Hawaiian Treasurer and securities commissioner	Hawaii's Case for Statehood
June 1	B. L. England President of company	Atlantic City Electric Co.
June 2	Charles F. Roos President, Econometric Institute	Influence of Business on the Securities Markets
June 5	N. D. Becker President of corporation	Intertype Corp.
June 6	J. H. Nuffler President of corporation	Air-Way Electric Appliance Corp.
June 9	Frank J. Guigan Chairman of corporation Salvatore Giordano President of corporation	Fedders-Guigan Corp.
June 12	H. L. Gruehn Vice-president of company	Consolidated Gas Electric Light & Power Co. of Baltimore
June 13	Thomas Campbell Editor, *Iron Age*	Every Man His Own Expert

Date	*Speaker*	*Topic*
June 14	F. H. Lerch, Jr. President of company	Consolidated Natural Gas Co.
June 16	R. L. Huffins, Jr. Vice-president, Burlington Mills	The Textile Industry Looks at New Synthetic Fibers
June 19	H. I. Young President of company	American Zinc, Lead & Smelting Co.
June 20	R. C. Enos President of company	Standard Steel Spring Co.
June 21	E. Holley Poe E. Holley Poe Associates	Expansion Prospects for the Natural Gas Industry
June 22	Segh R. Powell, Jr. President of company	Seaboard Air Line R.R. Co.
June 26	L. A. Brown President of company	National Fuel Gas Co.
June 28	C. P. Conrad President of company	Iowa-Illinois Gas & Electric Co.
June 29	R. B. Scott Treasurer of corporation	General Finance Corp. of Chicago

* * *

1819

General failure of state banks, specie disappeared.

(Niles) "Oh blame not the banks if they fly to suspension.
They would have done better and 'twas not their intention."

"The industry of the country was laid prostrate—its circulating medium drained away—its resources exhausted—and distress overspread the face of the land."

The Bank of the United States demanded the Bank of Kentucky liquidate its large debt to her. The Bank of Kentucky suspended and paid the debt at 15% discount."

Kentucky and Tennessee replevin laws giving relief to debtor at great cost to creditor.

Bank curtailment fell "almost entirely upon the offices of the East, where curtailment was not desirable."

"The multiplication of banks, the state of the currency, and the high price which all exportable articles commanded led to extravagance of every kind, and particularly to the consumption of foreign merchandise. The resources of individuals have been, by these seductions, in a great degree anticipated during the years which succeeded the peace. The sudden reduction in value of all exportable articles, which occurred about the commencement of the year 1819, not only prevented, in a great degree, further purchases, but rendered the discharge of engagements, previously contracted, impracticable. The pressure thus produced upon the community reacted upon the venders of every species of merchandise. . . ."

"The financial affairs of the country were in a wretched condition. The currency was greatly depreciated; very many failures of State banks, corporations, and individuals occurred, and the country had not yet recovered from the late war."

Slave prices $400.

"The banks are breaking all over the country; some in a sneaking, and some in an impudent manner; some with sophisticating evasion, and others with the front of highwaymen." (Adam's diary)

Lands in Pennsylvania which had brought $122 in 1815 fell to from $29 to $42 in 1819 and in January and February. March prices of western produce and manufacturing declined to almost nothing.

(Secretary Crawford) "Few instances are on record of suffering so deep and so extensive as those which have overspread the United States."

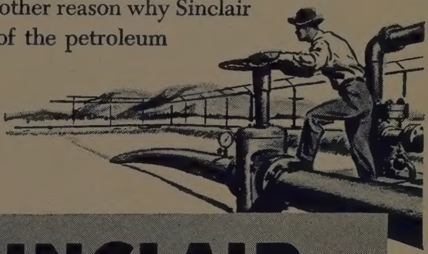
June 5 . . . (Niles) "Everyone who thought about the condition in which the U. S. was placed by the excess of the paper system—and neglect of the Government to protect domestic manufactures were positive that a time of unprecedented pressure in money matters must take place. . . . The distress in the United States is general."

July . . . Great fall in prices began to be felt.

August . . . (Niles) "Honesty has fled the world—Credit is turned crazy and conscience is nailed on the wall."

August . . . Unemployment. Drop in land values.

December 11 . . . (Niles) "With the blessings of God—the people of the U. S. have brought to an understanding of the length and breadth, height, and depth, of the supremely-to-be-hated rag, or paper system—which of late years first made them mad and then ruthlessly destroyed tens of thousands of them."



SINCLAIR'S "pipes" have a 280,000,000-gallon *thirst!*

How big is Sinclair's network of pipelines?

So big that, in order to maintain constant flow, there must be at least 280,000,000 gallons of oil and oil products moving through the system every minute of the day.

In fact, there is at all times enough "line fill and working stocks" in the crude oil pipelines to supply the total oil needs of the United States for nearly 24 hours . . . and more than enough in the petroleum products line, if it were all automotive gasoline, to provide an average day's fuel supply for every passenger car in the country.

How does Sinclair's pipeline system compare with other pipelines?

Sinclair's pipelines add up to the longest company-owned system in the world—13,861 miles.

Why does Sinclair operate pipelines?

Because pipelines are the most efficient and economical land method of transporting oil and oil products in bulk. This tremendous pipeline system is another reason why Sinclair is a leader of the petroleum industry.

SINCLAIR

A Great Name in Oil

SINCLAIR OIL CORPORATION • 630 FIFTH AVENUE • NEW YORK 20, N. Y.

WORLD-WIDE BANKING
Chase

THE CHASE NATIONAL BANK

OF THE CITY OF NEW YORK

STATEMENT OF CONDITION, JUNE 30, 1950

RESOURCES

Cash and Due from Banks	$1,199,628,369.05
U. S. Government Obligations	1,671,781,138.39
State and Municipal Securities	170,573,972.39
Other Securities	155,998,291.09
Mortgages	35,073,960.72
Loans	1,404,655,407.45
Accrued Interest Receivable	10,639,311.19
Customers' Acceptance Liability	18,137,871.25
Banking Houses	29,119,285.71
Other Assets	2,141,404.78
	$4,697,749,012.02

LIABILITIES

Deposits		$4,298,936,909.82
Dividend Payable August 1, 1950		2,960,000.00
Reserves—Taxes and Expenses		15,268,644.02
Other Liabilities		11,508,560.91
Acceptances Outstanding		23,975,167.11
Less: In Portfolio		*4,696,152.44*
Capital Funds:		
Capital Stock (7,400,000 Shares–$15 Par)	$111,000,000.00	
Surplus	189,000,000.00	
Undivided Profits	49,795,882.60	
		349,795,882.60
		$4,697,749,012.02

United States Government and other securities carried at $295,701,972.00 were pledged to secure public and trust deposits and for other purposes as required or permitted by law.

Member Federal Deposit Insurance Corporation